



UNIVERSITY OF
BIRMINGHAM



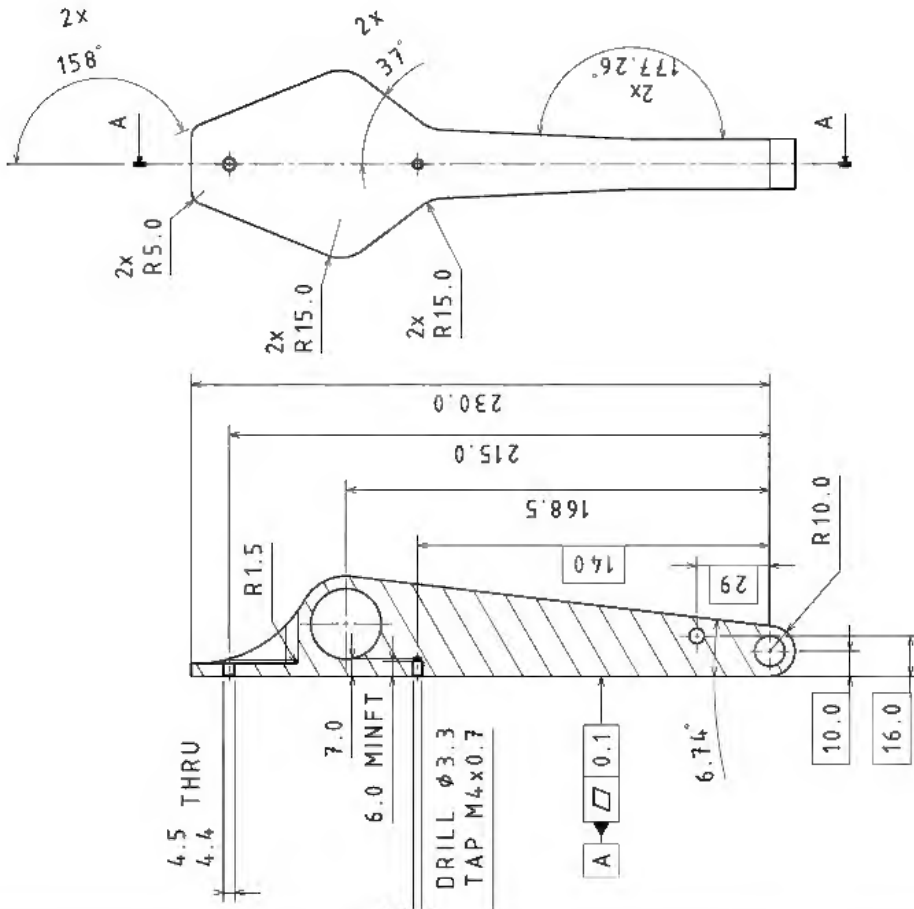
Car 82

Cost and Manufacturing Event

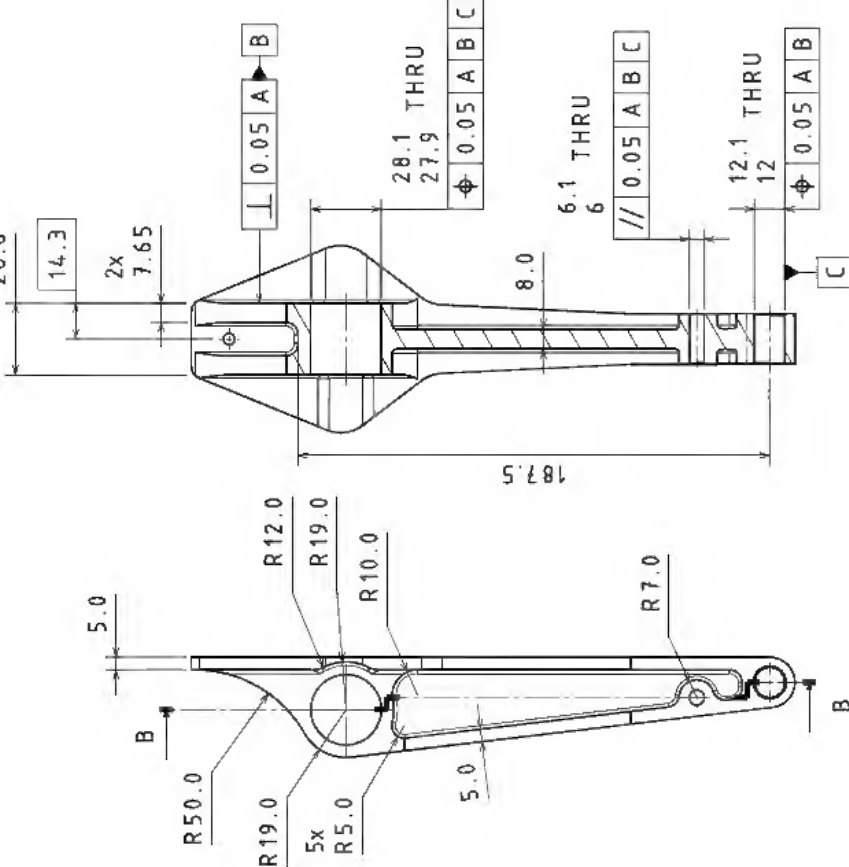
Cost Explanation Supporting Document

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SECTION A-A



SECTION B-B

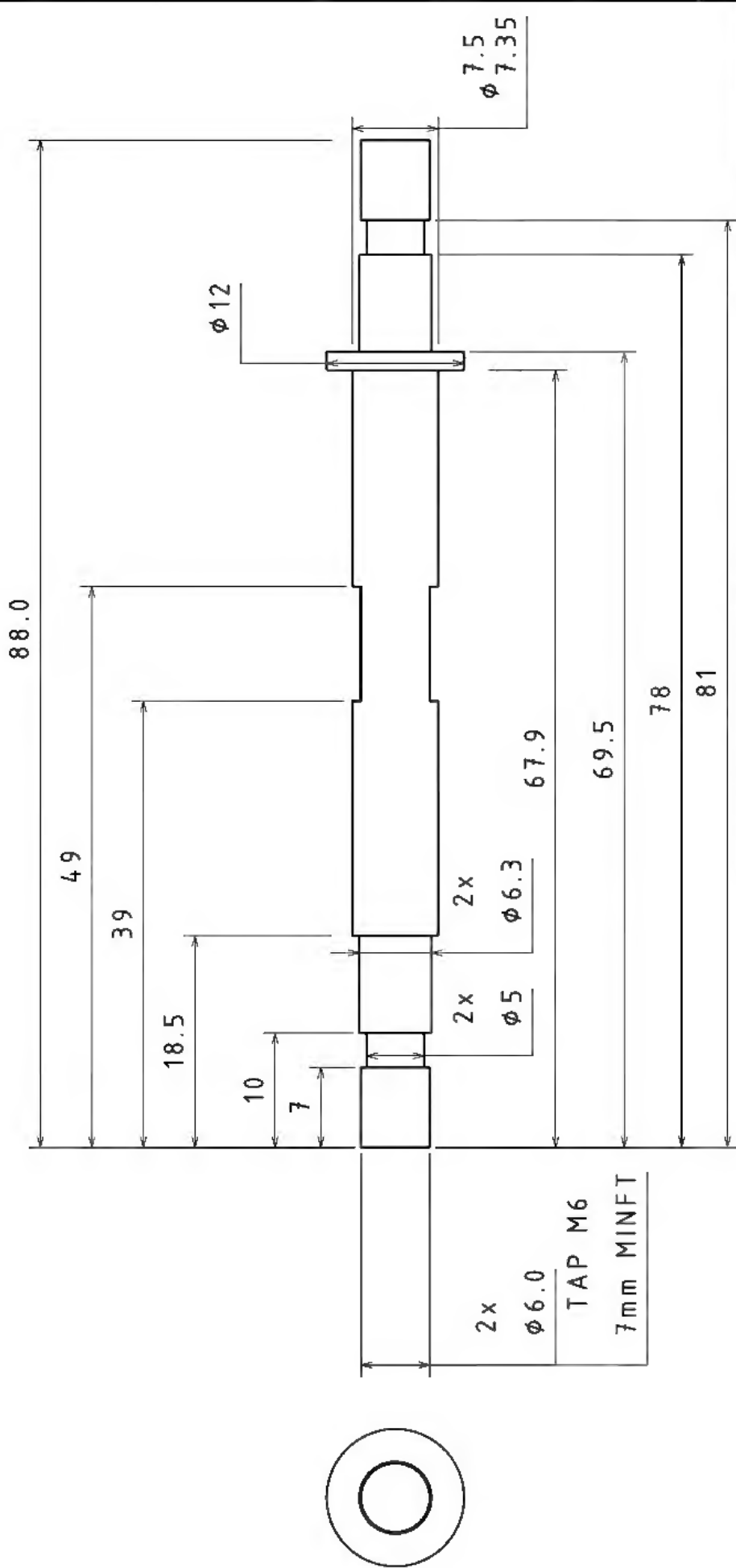
NOTES:

- 1) MACHINE UNDIMENSIONED FEATURES TO CAD DATA \square 0.2
- 2) REMOVE BURRS AND SHARP EDGES

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.294		MATERIAL					
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES U.O.S		MASS (kg)				SPEC					
A3	DO NOT SCALE	0 DECIMAL PLACES		DRAWN BY	LPT	SURFACE		TREATMENT					
		1 DECIMAL PLACES				TREATMENT							
		2 DECIMAL PLACES				N/A							
		3 DECIMAL PLACES				N/A							
0.1 TIR		DESCRIPTION		BRAKE PEDAL ARM									
ANGULAR TOLERANCE													
REMOVE BURRS AND SHARP EDGES													
E MAIL: ubracing@gmail.com				SCALE		1:2				SHEET			
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										NUMBER			
										UBR28_PB_201			
										03A			
										A			

REV	DESCRIPTION	INT	DATE
01A	INITIAL RELEASE	LPT	18/02/2025

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	LPT	09/06/2025



UBRACING		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES U.O.S		SPEC		ALUMINIUM	
A4		0 DECIMAL PLACES		DRAWN BY		N/A	
DO NOT SCALE		1 DECIMAL PLACES		LPT		N/A	
TEL. +44 (0)121 414 4218		2 DECIMAL PLACES		SCALE		CLEVIS MCYL BAR	
EMAIL ubracing@gmail.com		3 DECIMAL PLACES		2:1		1/1	
This drawing and the copyright herein are the property of UBRACING. It is private & confidential and is issued on the express condition that it is not modified, copied or communicated to any other party without the written consent of UBRACING.		GENERAL CONCENTRICITY 0.1 TIR		PART NUMBER		UBR28 PB N	
		ANGULAR TOLERANCE +0.25°		SCALE		204 02A	
		REMOVE BURRS AND SHARP EDGES		SHEET		A	

NOTES:
1) FLAT EDGES ON MILL
2) 5 mm OD SECTIONS ARE BOTH 3 mm WIDE, MACHINE USING PARTING TOOL

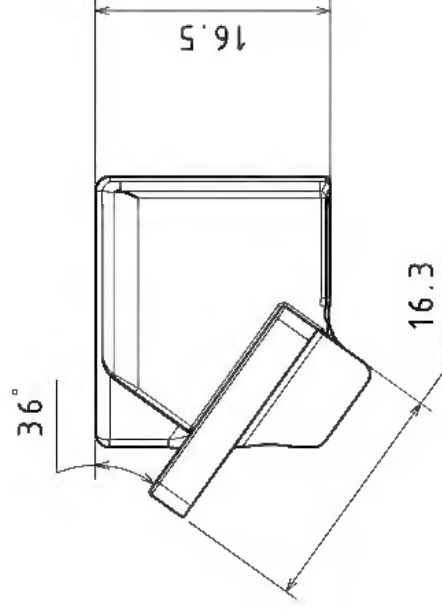
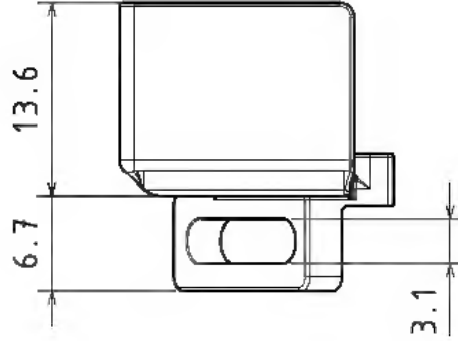
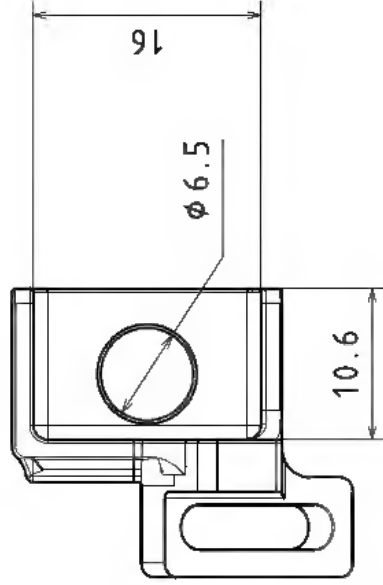
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	LPT	13/06/2025



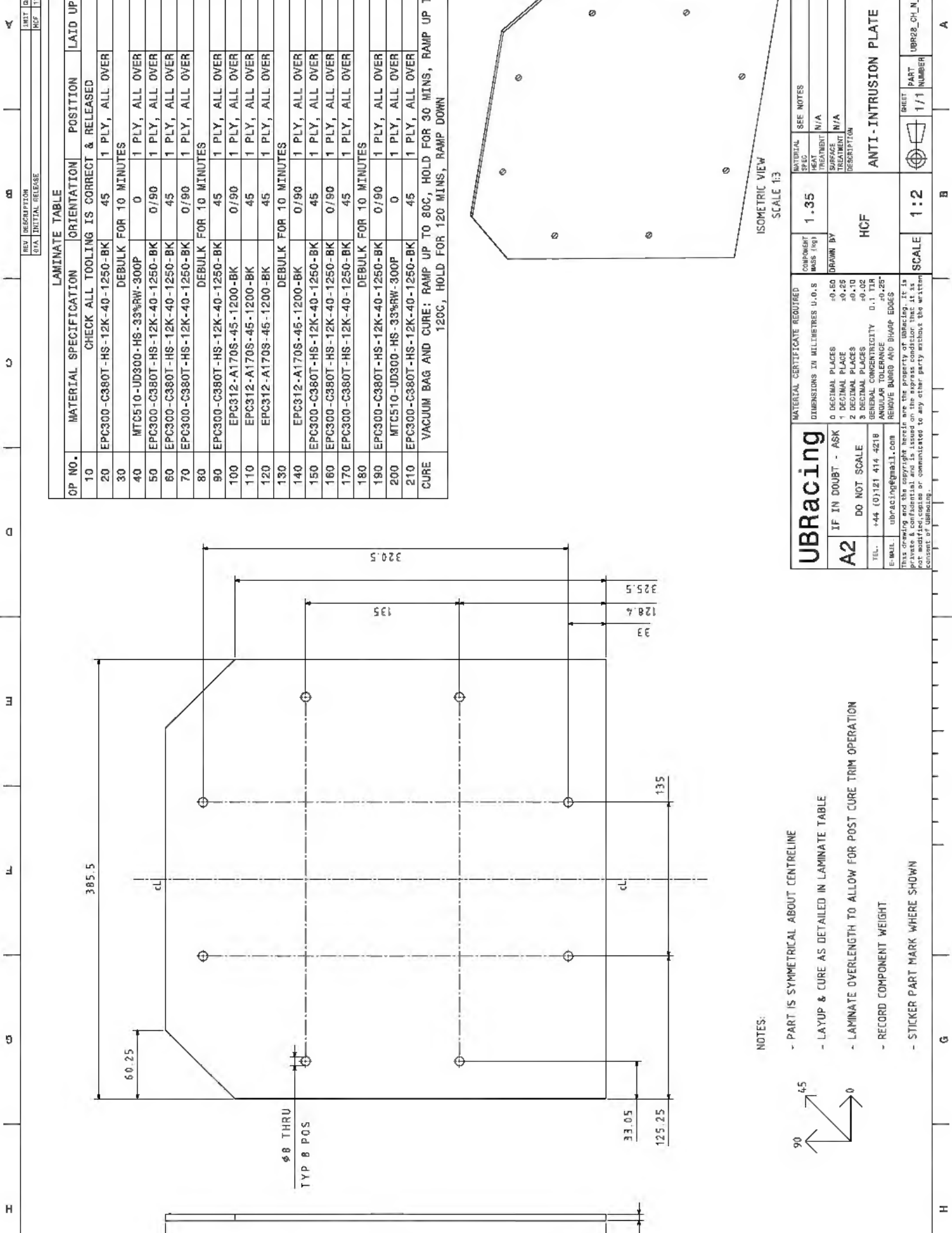
NOTES:

1) 3D PRINTED COMPONENT

UBRacing		MATERIAL CERTIFICATE REQUIRED				COMPONENT NAME (NO.)	0.008	MATERIAL SPEC HEAT TREATMENT	CARBON NYLON FILAMENT	
A4	IF IN DOUBT - ASK	DIMENSIONS IN MILLIMETRES U.O.S				DRAWN BY	LPT	SURFACE TREATMENT	N/A	
	DO NOT SCALE	0 DECIMAL PLACES ±0.50				ANGULAR TOLERANCE ±0.25°	REMOVE BURS AND SHARP EDGES		SHEET 1/1	PART NUMBER 206_01A
		1 DECIMAL PLACES ±0.25								
		2 DECIMAL PLACES ±0.10								
TEL. +44 (0)121 414 4218	3 DECIMAL PLACES ±0.02				DESCRIPTION					
E-MAIL: ubracing@gmail.com	GENERAL CONCENTRICITY 0.1 TIR									
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SCALE						2:1				

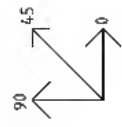
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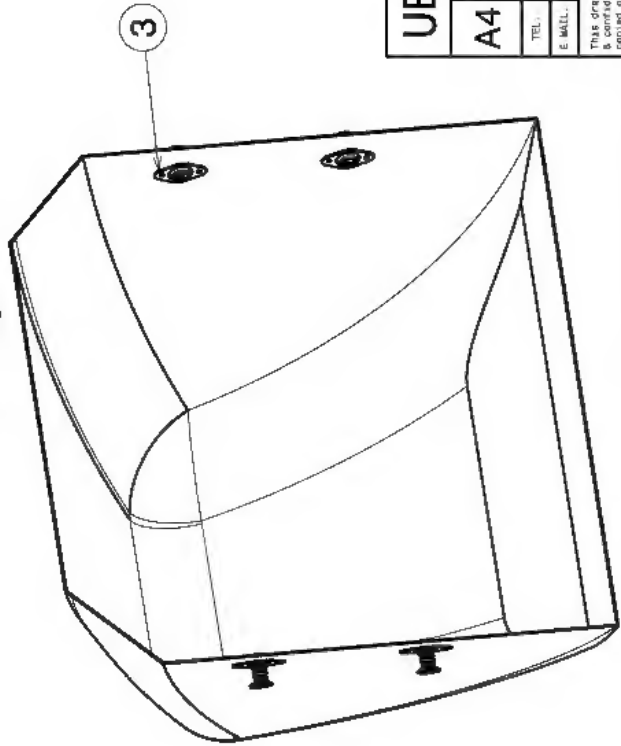
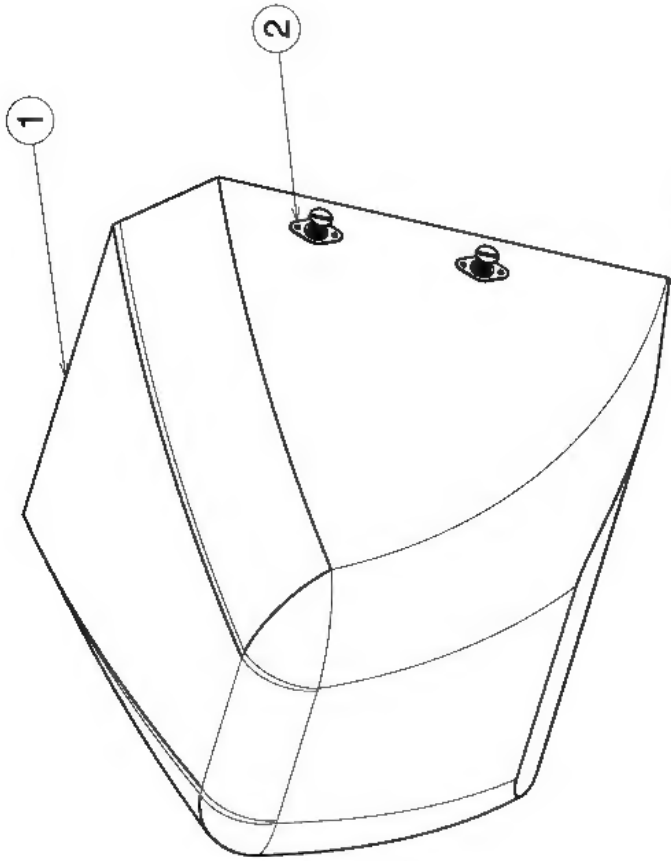
NOTES:

- PART IS SYMMETRICAL ABOUT CENTRELINE
- LAYUP & CURE AS DETAILED IN LAMINATE TABLE
- LAMINATE OVERLENGTH TO ALLOW FOR POST CURE TRIM OPERATION
- RECORD COMPONENT WEIGHT
- STICKER PART MARK WHERE SHOWN



ISOMETRIC VIEW
SCALE 1:3

UBRacing		MATERIAL CERTIFICATE REQUIRED DIMENSIONS IN MILLIMETRES U-0.5		COMPONENT MASS (kg)	1.35	MATERIAL HEAT TREATMENT	SEE NOTES N/A		
A2	IF IN DOUBT - ASK	0 DECIMAL PLACES 1 DECIMAL PLACE 2 DECIMAL PLACES 3 DECIMAL PLACES		DRAWN BY		SURFACE TREATMENT	N/A		
	DO NOT SCALE	GENERAL CONCENTRICITY ANGULAR TOLERANCE			HCF	DESCRIPTION			
TEL.	+44 (0)121 414 4218	0.1 TIR +0.25°							
E-MAIL	ubracing@gmail.com	REMOVE BURRS AND SHARP EDGES							
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						ANTI-INTRUSION PLATE			



Bill of Material: UBR28_CH_N_112_01A

Item	Part No.	Part Name	QTY.
1	UBR28_CH_N_012_01A	Part	1
2	D4-EHF5-75ZCTNA	QUARTER TURN FASTENER	4
3	UBR28_CH_N_023_01A	BACKING PLATE	4

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IF IN DOUBT - ASK

A4 DO NOT SCALE

TEL: +44 (0)121 414 4218

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MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES U.O.S	
0 DECIMAL PLACES	±0.50
1 DECIMAL PLACES	±0.25
2 DECIMAL PLACES	±0.10
3 DECIMAL PLACES	±0.02
GENERAL CONCENTRICITY	0.1 TIR
ANGULAR TOLERANCE	±0.25

REMOVE BURRS AND SHARP EDGES

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COMPONENT MASS (KG)	0.560
DRAWN BY	MAS

SCALE 1:5

MATERIAL SPEC	N/A
HEAT TREATMENT	N/A
SURFACE TREATMENT	N/A

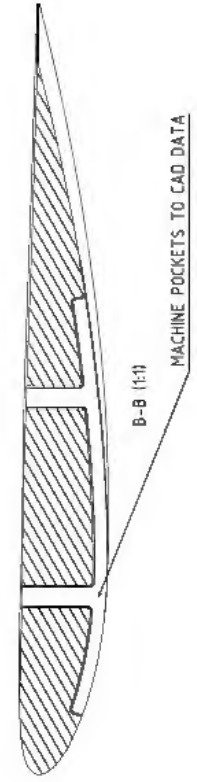
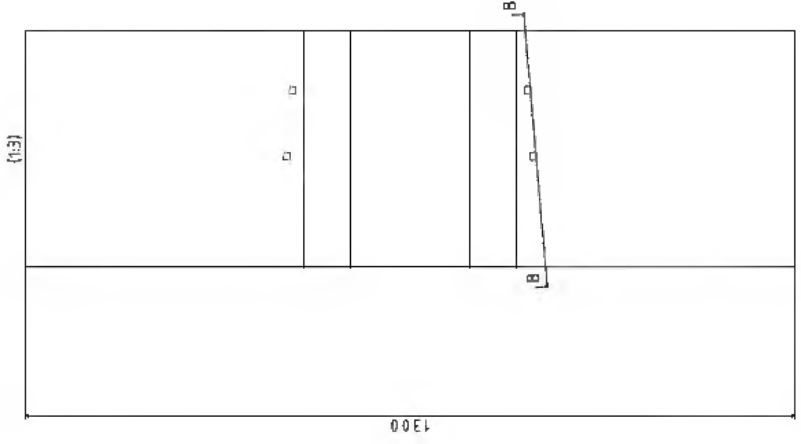
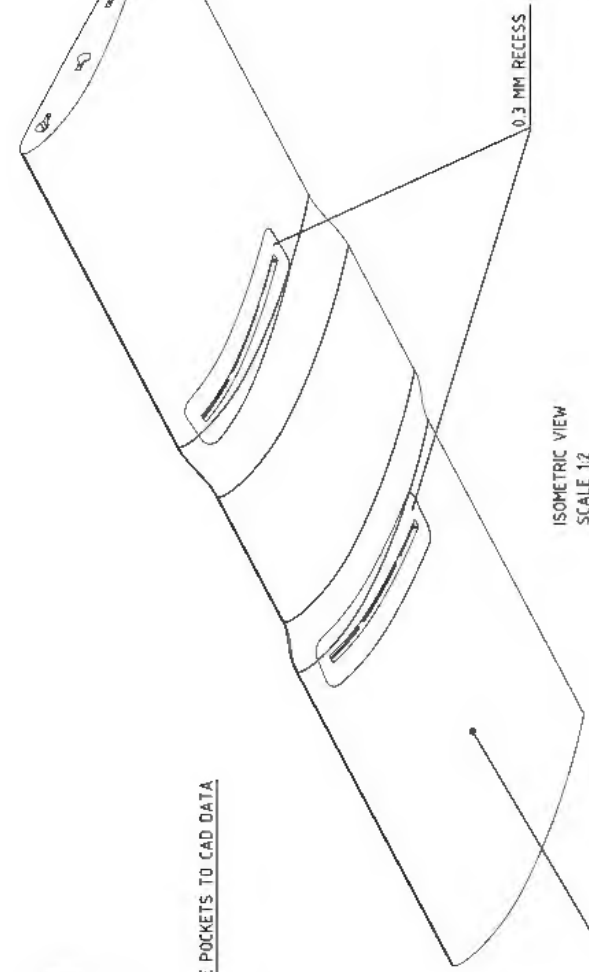
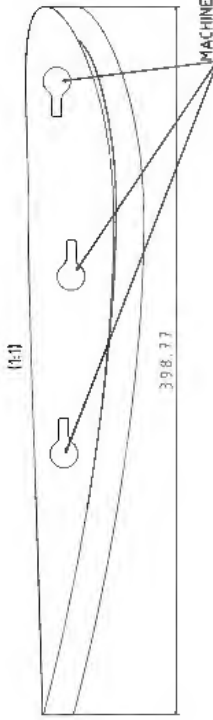
DESCRIPTION

NOSECONE ASSY

SHEET	1/1
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PART NUMBER

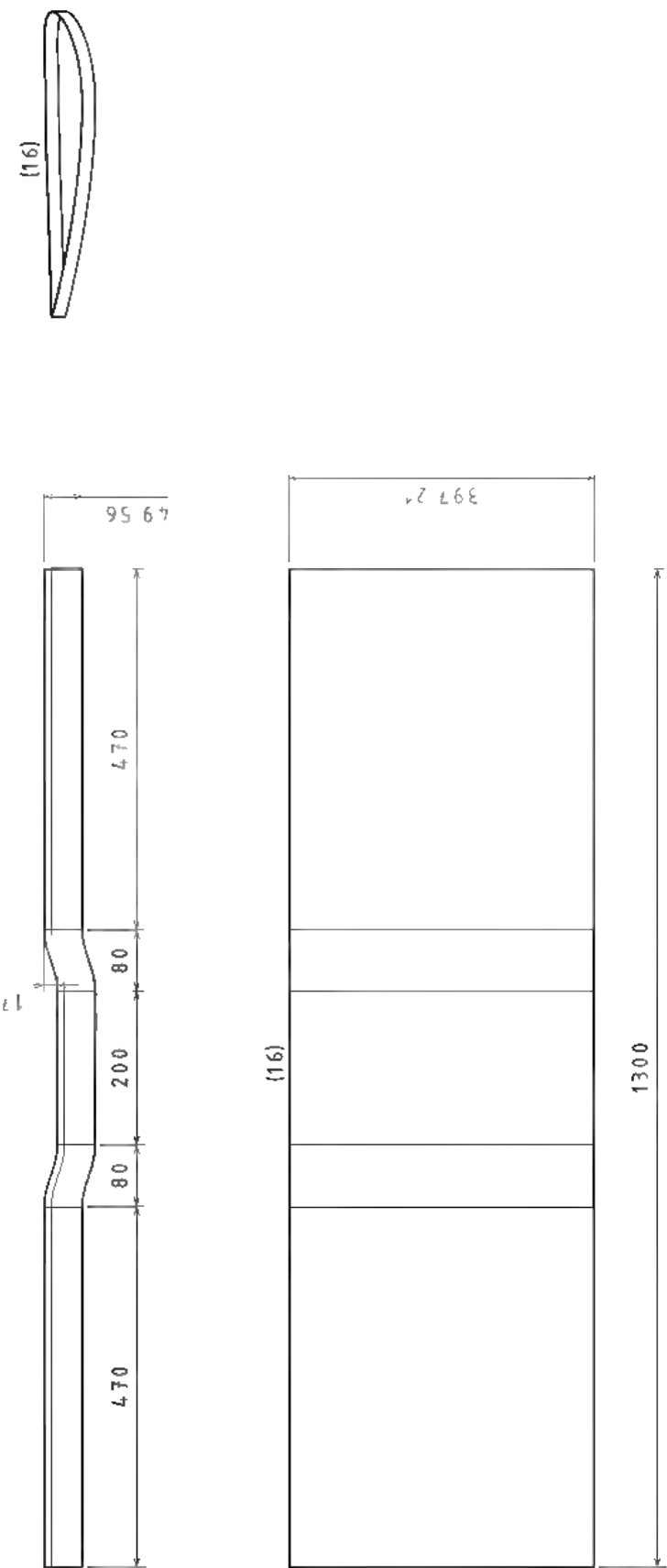
UBR28_CH_N_112_01A



NOTES:

- MACHINE FROM ROHACELL 51-IG-F
- MACHINE & INSPECT TO CAD FILE UBR28_AE_N_111_01A

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPANY		MATERIAL	
A0		IF IN DOUBT - ASK		N/A		ROHACELL 51-IG-F	
DO NOT SCALE		1 DESIGN PLACE		RGA		N/A	
TEL: +48 10121 414 8218		2 DESIGN PLACE		CHECKED BY		N/A	
		GENERAL CONCENTRICITY		100		N/A	
		ANGULAR TOLERANCE		SCALE		N/A	
		HONEYCOMB WALL THICKNESS					
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LAMINATE TABLE			
OP NO	MATERIA. SPEC	ORIENTATION	POSITION
1	CHECK ALL ROHACELL CORE AND NSERTS ARE CLEAN		
2	ROHACELL CORE AND NSERTS	-	-
3	FILM BOND ADHESIVE	-	1 PLY, ALL OVER
4	EPC300-C245T-HS-3K-42-1250	-	PATCH PLY
5	EPC300-C245T-HS-3K-42-1250	0/90	1 PLY, ALL OVER
6	MYLAR FILM	-	-
CURE VACUUM BAG AND CURE RAMP TO 80C HOLD FOR 30MIN, RAMP TO 120C, HOLD FOR 120MIN, RAMP DOWN			

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

+44 (0)121 414 4218

TEL

UBRacing@gbmail.com

E MAIL

MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES u O S

0 DECIMAL PLACES

1 DECIMAL PLACES

2 DECIMAL PLACES

3 DECIMAL PLACES

GENERAL CONCENTRICITY

ANGULAR TOLERANCE

LEGUME SQUARES AND SQUARE EDGES

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COMPONENT MASS .Kg

0.000

DRAWN BY

RGA

SCALE

1:6

SHEET

1/1

PART

UBR28 AF N 11

NUMBER

2 01A

MATERIAL SPEC

REACT RESIN

SURFACE TREATMENT

DESIGN PATTERN

COMPOSITE

N A

N A

FRONT WING MAIN ELEMENT

A

B

G

H

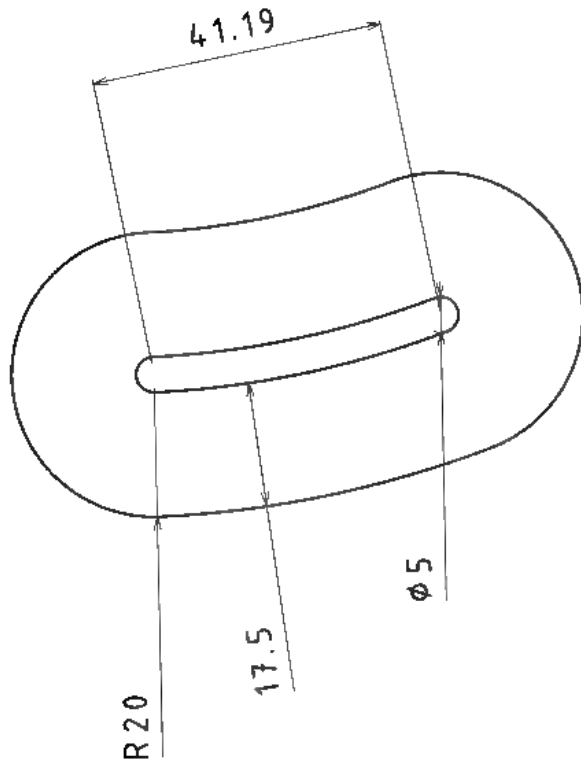
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.000		3MM PLYWOOD	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES 0.08		NO. (V.U.)		DRAWN BY		TEST TREATMENT	
A4		0 DECIMAL PLACES ±0.50		01		RG		N A	
DO NOT SCALE		1 DECIMAL PLACES ±0.25		02		RG		N A	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES ±0.10		03		RG		N A	
E-MAIL ubracing@gmail.com		3 DECIMAL PLACES ±0.02		04		RG		N A	
		GENERAL CONCENTRICITY 0.1 TIR		05		RG		N A	
		ANGULAR TOLERANCE ±0.25°		06		RG		N A	
		REMOVE BURRS AND SHARP EDGES		07		RG		N A	
		This drawing and the copyright herein are the property of UBRacing. It is to be used as a reference only and is not to be reproduced or used in any other way without the written consent of UBRacing.		08		RG		N A	
		FRONT WING ENDPLATE TO SECOND ELEMENT INSERT		09		RG		N A	
		SCALE 1:1		10		RG		N A	
		SHEET PART 1/1 NUMBER 118.01A		11		RG		N A	

A

D

418 3

196 2

(13)

(13)

LAMINATE TABLE			
OP NO	MATERIA. SPEC	ORIENTATION	POSITION
1	CHECK ALL TOOLING IS CORRECT AND RELEASED		
2	EPC300 (245T-HS 3K 42 1250	45	1 PLY, ALL OVER
3	EPC300 (245T-HS 3K 42 1250	0/90	1 PLY, ALL OVER
4	MYLAR FILM	-	-
CURE	VACUUM BAG AND CURE RAMP TO 80C HOLD FOR 30MIN, RAMP TO 120C HOLD FOR 120MIN RAMP DOWN		

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL ubracing@gmail.com

MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES ± 0.5

0 DECIMAL PLACES ±0.50

1 DECIMAL PLACES ±0.25

2 DECIMAL PLACES ±0.10

3 DECIMAL PLACES ±0.02

GENERAL CONCENTRICITY 0.1% TIR

ANGULAR TOLERANCE ±0.20°

COMPONENT MASS kg

0.000

DRAWN BY

RGA

MATERIAL SPEC

REINFORCING

COMPOSITE

N/A

REINFORCING

TREATMENT N/A

DESCRIPTION

FRONT WING SECOND

ELEMENT

SCALE

1:1

SHEET

1/1

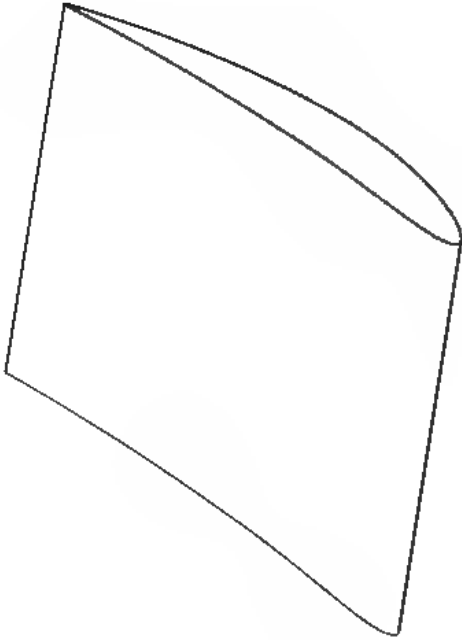
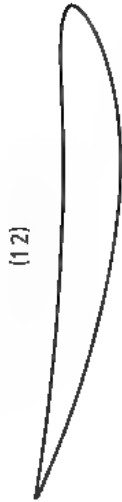
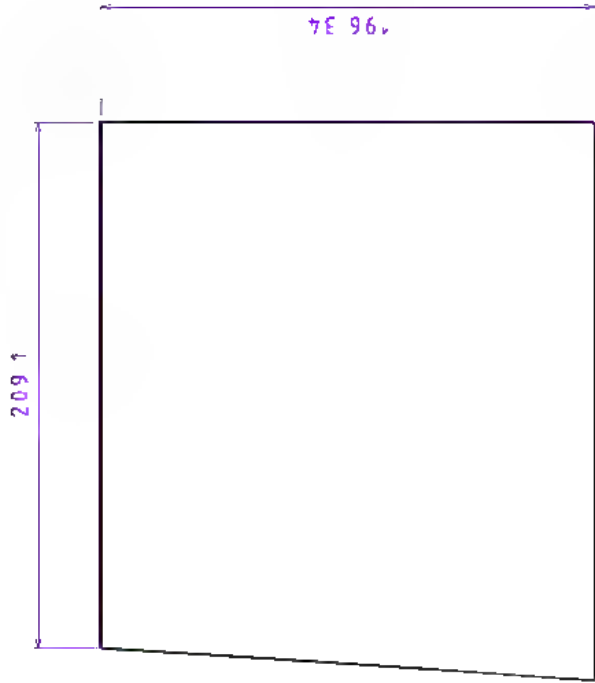
PART

UBR28 AF N 12

NUMBER

1 01A

REV	DESCRIPTION	DATE
D A	INITIAL RELEASE	RGA 3 8 28



LAMINATE TABLE		
OP NO	MATERIAL SPEC	ORIENTAT ON POSITION
1	CHECK ALL TOOLING IS CORRECT AND RELEASED	
2	EPC300 C245T HS 3K 42 1250	45 1 P-Y, AL- OVER
3	EPC300 C245T HS 3K 42 1250	0/90 1 P-Y, AL- OVER
4	NYLAR FILM	-
CURE	VACUUM BAG AND CURE RAMP TO 80C, HOLD FOR 30MIN, RAMP DOWN TO 120C, HOLD FOR 120MIN, RAMP DOWN	

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT MASS, kg		MATERIAL SPEC	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES TO 0.3		0.000		210 GSM PREPREG CFRP	
A3	DO NOT SCALE	0 DECIMAL PLACES ±0.60		DRAWN BY		REVISION	
TEL	+44 (0)121 414 4218	1 DECIMAL PLACES ±0.25		RGA		N A	
E MAIL		2 DECIMAL PLACES ±0.10		SCALE		N A	
UBRacing@gbma.ltd		3 DECIMAL PLACES ±0.02		1:2		FRONT WING THIRD ELEMENT	
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		ANGULAR TOLERANCE ±0.25°		1:1		UBR28 AF N 13	

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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25

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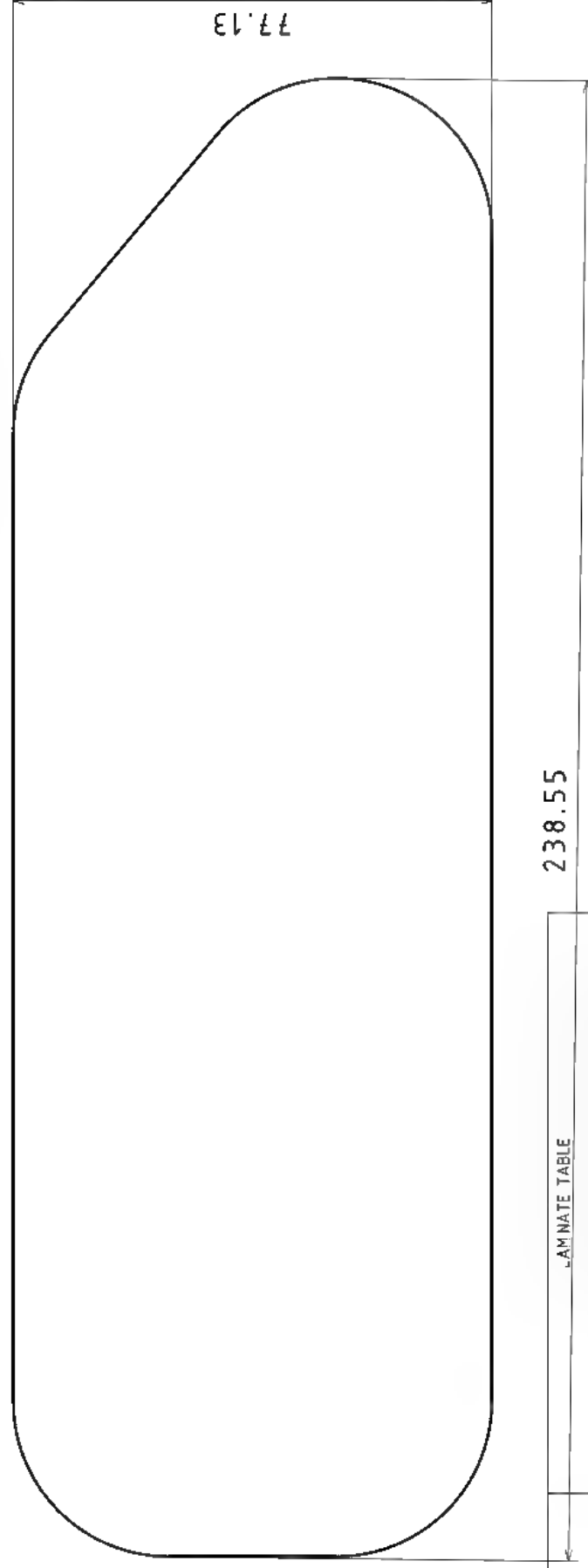
1

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3

2

1



LAMINATE TABLE			
OP NO	MATERIAL SPEC	ORIENTATION	POSITION
1	CHECK ALL TOOLING S CORRECT AND RELEASED		
2	EPC300 C245T HS 3K 42 1250	0/90	1 PLY, ALL OVER
3	EPC300-C245T-HS-3K-42-1250	45	1 PLY, ALL OVER
4	FLM BOND ADHESIVE	-	1 PLY ALL OVER
5	ROHACELL CORE AND INSERTS	-	-
6	FLM BOND ADHESIVE	-	1 PLY, ALL OVER
7	EPC300 C245T HS 3K 42 1250	-	PATCH PLY
8	EPC300-C245T-HS-3K-42-1250	0/90	1 PLY, ALL OVER
9	PEEL PLY		
CURE	VACUUM BAG AND CURE RAMP TO 80C. HOLD FOR 30MIN, RAMP TO 120C, HOLD FOR 120MIN, RAMP DOWN		

UBRacing

IF IN DOUBT	ASK
DO NOT SCALE	
TEL	+44 (0)121 414 4218
E MAIL	ubracings@gmail.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES ± 0.8	
0 DECIMAL PLACES	±0.50
1 DECIMAL PLACES	±0.25
2 DECIMAL PLACES	±0.10
3 DECIMAL PLACES	±0.02
GENERAL CONCENTRICITY	0.1 TIR
ANGULAR TOLERANCE	±0.25°

COMPONENT NO. 100	0.000
DRAWN BY	RGA

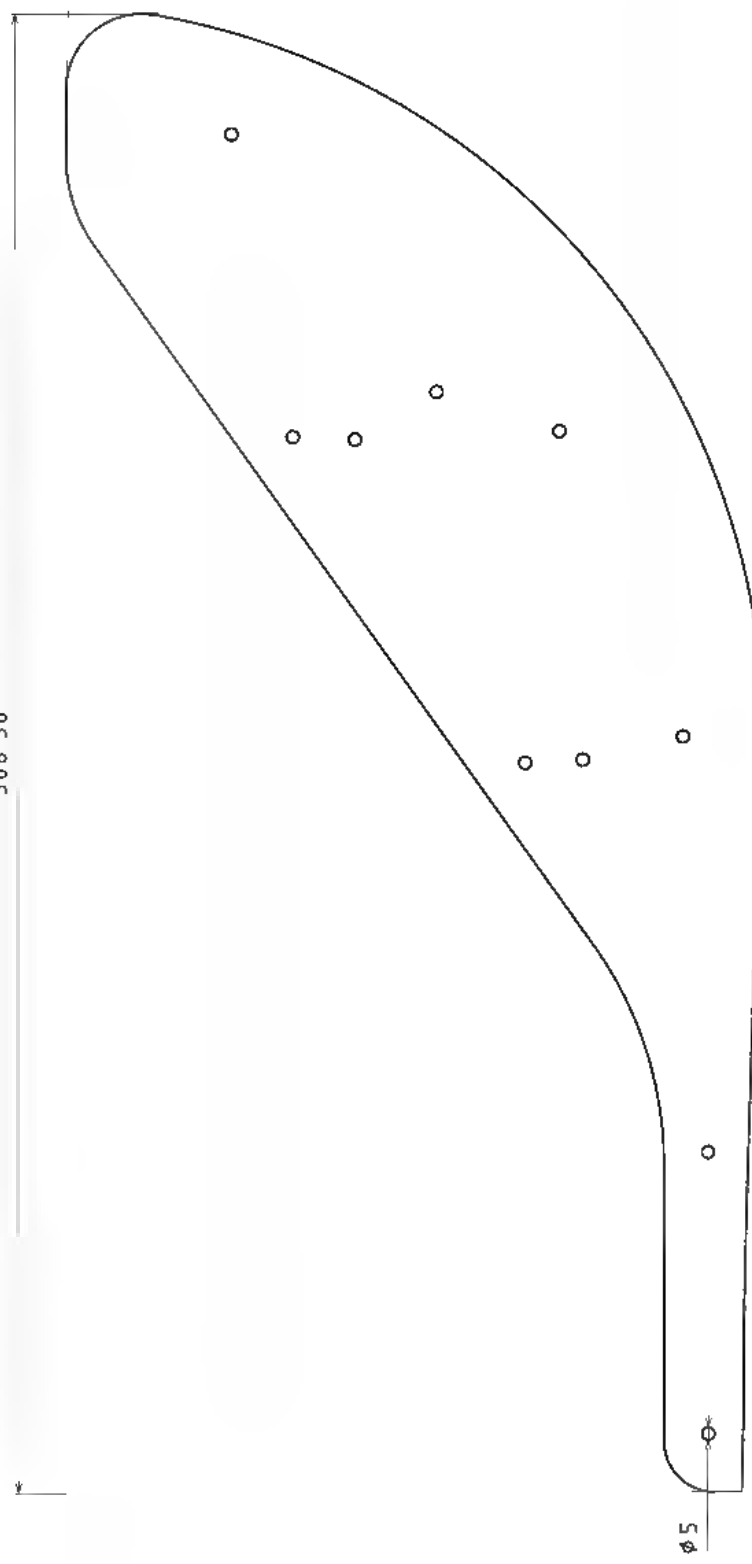
MATERIAL SPEC	COMPOSITE
RESIN PREPREG	N/A
SURFACE FINISH	N/A
DESCRIPTION	
FRONT WING THIRD ELEMENT ENDPLATE	

SHEET PART	UBR28_AE_N
1/1 NUMBER	132_01A

REMOVE BURRS AND SHARP EDGES
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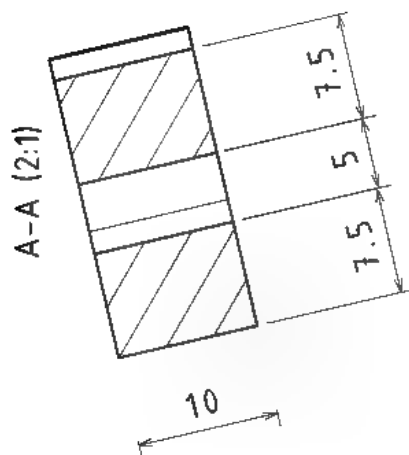
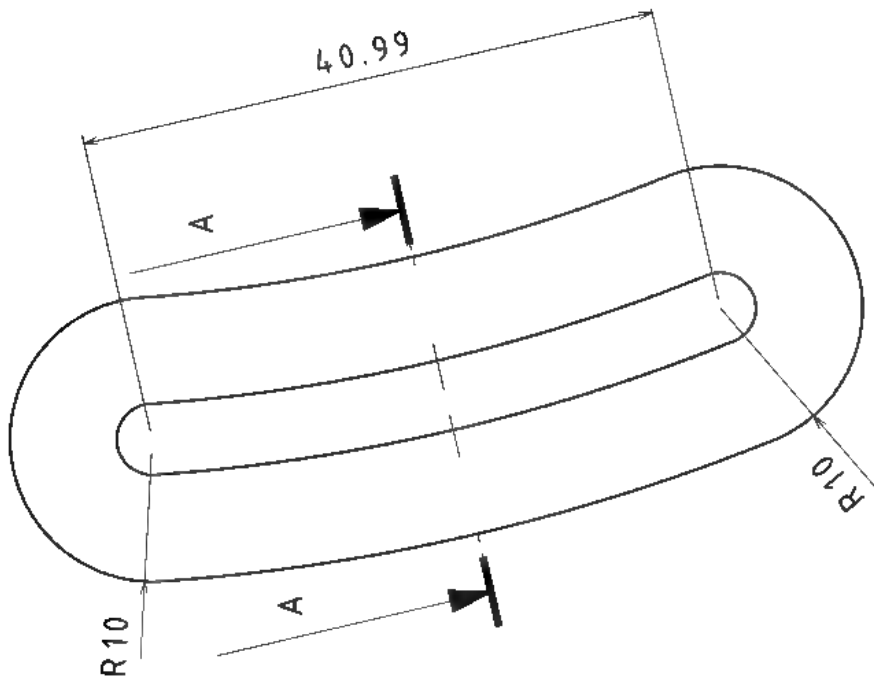
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.000		10MM PLYWOOD	
A4		DIMENSIONS IN MILLIMETRES ± 0.8		DRAWN BY		RGA		CENTERPLATE TO SECOND ELEMENT LOWER INSERT	
IF IN DOUBT ASK		0 DECIMAL PLACES ± 0.25		REMOVE BURRS AND SHARP EDGES		SCALE		2:1	
DO NOT SCALE		1 DECIMAL PLACES ± 0.10		THIS DRAWING AND THE COPYRIGHT HEREIN ARE THE PROPERTY OF UBRACING. IT IS HEREBY ACKNOWLEDGED AND AGREED THAT IT IS NOT TO BE REPRODUCED, COPIED OR COMMUNICATED IN ANY OTHER WAY WITHOUT THE WRITTEN CONSENT OF UBRACING.		U-BRACING		UBR28_AE_N	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES ± 0.02		ANGULAR TOLERANCE ± 0.25°		147.01A		1/1 NUMBER	
E-MAIL ubracing@gmail.com		3 DECIMAL PLACES ± 0.01		GENERAL CONCENTRICITY 0.1 TIR		147.01A		147.01A	

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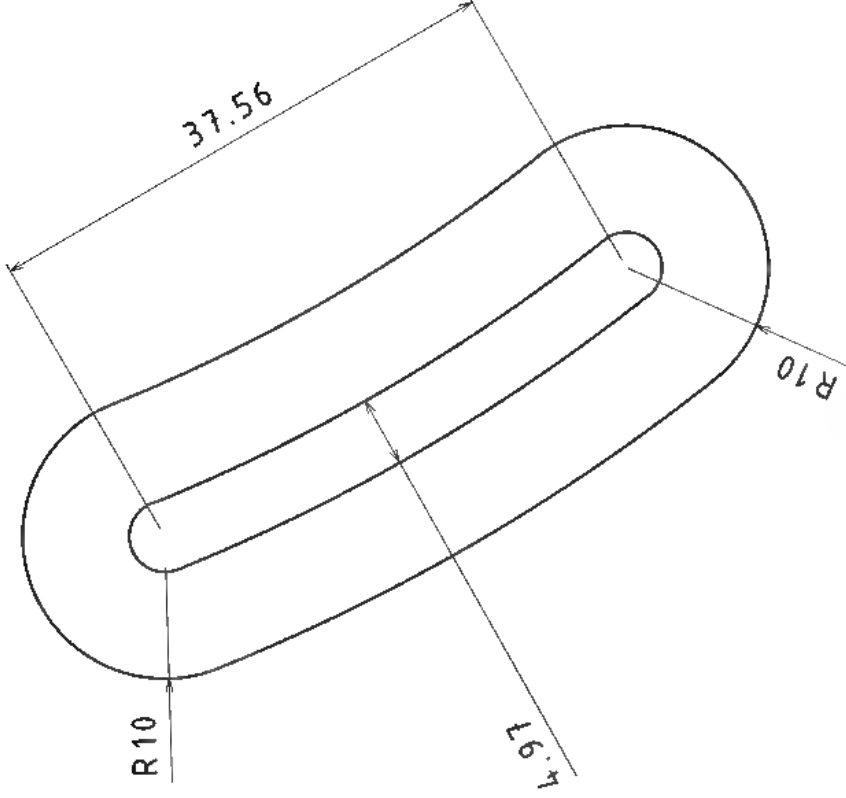
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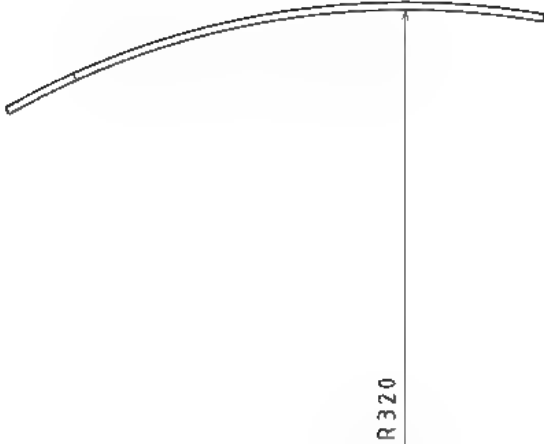
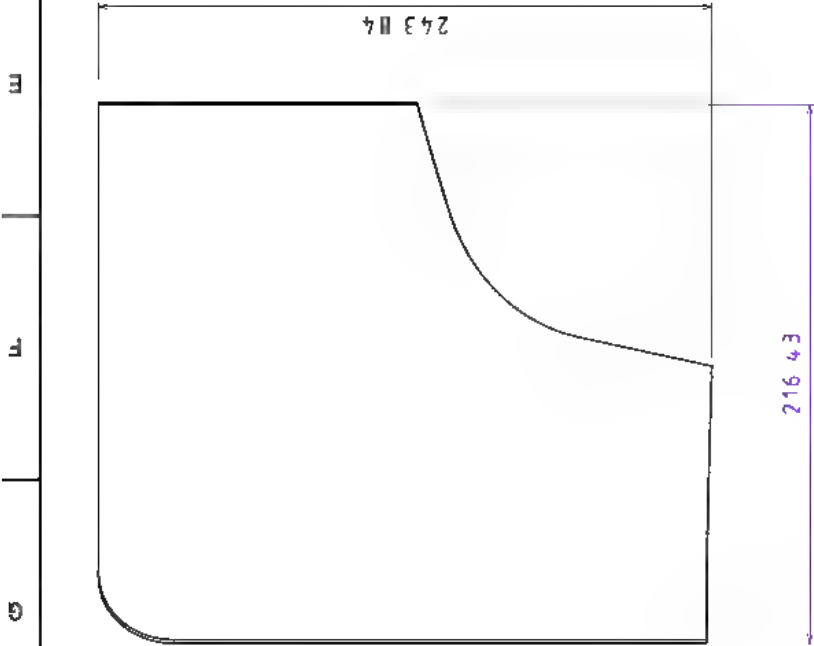
REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



UBRacing		MATERIAL CERTIFICATE REQUIRED		CONFORMITY		0.000		10MM PLYWOOD	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES U O S		MOSS 1461		DRAWN BY		HEAT TREATMENT	
A4		0 DECIMAL PLACES ±0.50		0		1 DECIMAL PLACES ±0.25		N A	
DO NOT SCALE		1 DECIMAL PLACES ±0.10		1		2 DECIMAL PLACES ±0.02		N A	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES ±0.02		2		3 DECIMAL PLACES ±0.01		DESCRIPTION	
E-MAIL ubracing@gmail.com		GENERAL CONCENTRICITY 0.1 TIR		0		ANGULAR TOLERANCE ±0.25°		CENTERPLATE TO THIRD ELEMENT	
REMOVE BURRS AND SHARP EDGES		SCALE		2:1		SHEET PART		UBR28_AE_N	
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OP NO	MATERIAL SPEC	ORIENTATION	POSITION
1	CHECK ALL TOOLING IS CORRECT AND RELEASED		
2	EPC300-C245T-HS-3K-42-1250	0/90	1 PLY, ALL OVER
3	EPC300-C245T-HS-3K-42-1250	45	1 PLY, ALL OVER
4	FILM BOND ADHESIVE	-	1 PLY, ALL OVER
5	3MM NOMEX CORE	-	-
6	FILM BOND ADHESIVE	-	1 PLY, ALL OVER
7	EPC300-C245T-HS-3K-42-1250	45	1 PLY, ALL OVER
8	EPC300-C245T-HS-3K-42-1250	0/90	1 PLY, ALL OVER
9	PEEL PLY		
CURE	VACUUM BAG AND CURE RAMP TO 80C HOLD FOR 30MIN RAMP TO 120C, HOLD FOR 120MIN, RAMP DOWN		

LAMINATE TABLE

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL ubracing@btinternet.com

MATERIAL CERTIFICATE REQUIRED
DIMENSIONS IN MILLIMETRES ± 0.5
0 DECIMAL PLACES ±0.50
1 DECIMAL PLACE ±0.25
2 DECIMAL PLACES ±0.10
3 DECIMAL PLACES ±0.02
GENERAL CONCENTRICITY 0.1% TYP
ANGULAR TOLERANCE ±0.25°

REMOVE BURRS AND SHARP EDGES
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COMPONENT MASS: kg
DRAWN BY RGA
SCALE 1:2
MATERIAL SPEC 0.000
REPAIR METHOD N/A
CORROSION TREATMENT N/A
DESCR: VORTEX GENERATOR

REVISIONS
REV DESCRIPTION
D A INITIAL RELEASE
DATE 3 8 2016

SHEET 1/1
PART NUMBER 1 01A
UBR28 AF N 16

A

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C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25

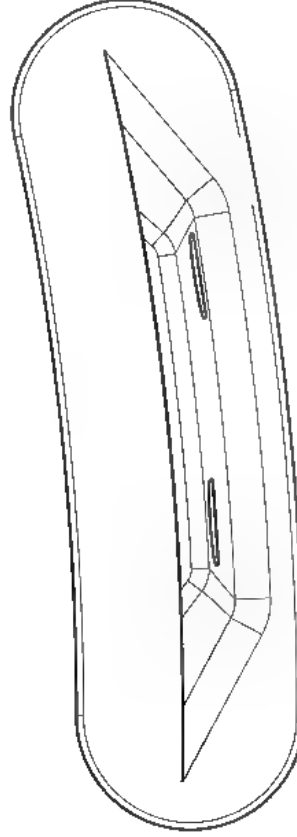
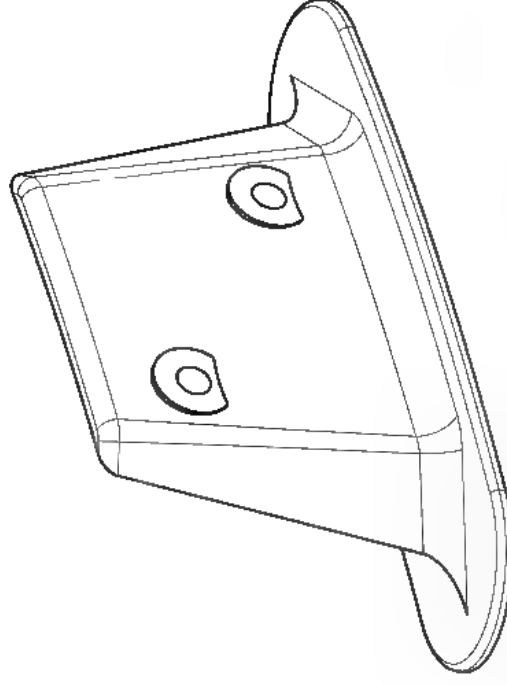
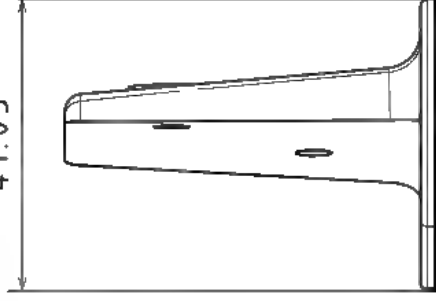
116.73

57.36

52

81.99

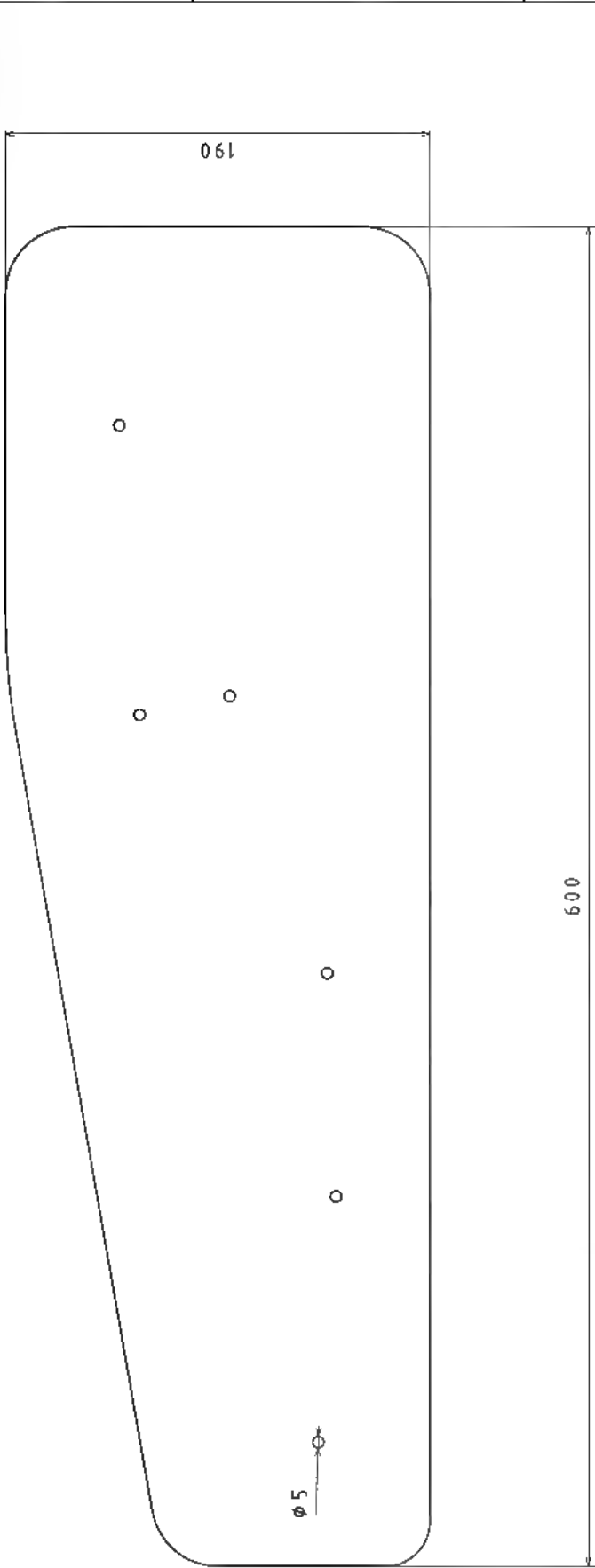
41.05



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT	0.000	MATERIAL	CARBON-NYLON
A4	IF IN DOUBT ASK	DIMENSIONS IN MILLIMETRES	0.0	DRAWN BY	0.000	REVISION	N/A
	DO NOT SCALE	0 DECIMAL PLACES	±0.50			SURFACE	N/A
TEL	+44 (0)121 414 4218	1 DECIMAL PLACES	±0.25			FINISH	N/A
E-MAIL	ubracings@bt.com	2 DECIMAL PLACES	±0.10			DESCRIPTION	VORTEX GENERATOR
		3 DECIMAL PLACES	±0.02				BRACKET
		GENERAL CONCENTRICITY	0.1 TIR				
		ANGULAR TOLERANCE	±0.25°				
		REMOVE BURRS AND SHARP EDGES					
		This drawing and the copyright herein are the property of UBRacing. It is hereby acknowledged and agreed that it is not to be reproduced, copied or communicated to any other party without the written consent of UBRacing.					
		SCALE	1:1	SHEET	1/1	PART	UBR28_AE_N
				NUMBER	162_01A		

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D



LAMINATE TABLE		
OP NO	MATERIAL SPEC	ORIENTATION POSITION
1	CHECK ALL TOOLING IS CORRECT AND RELEASED	
2	EPC300 C245T HS 3K 4.2 1250	0/90 1 P.Y, ALL OVER
3	EPC300 C245T HS 3K 4.2 1250	45 1 P.Y, ALL OVER
4	FILM BOND ADHESIVE	- 1 P.Y, ALL OVER
5	ROHACEL CORE AND INSERTS	- -
6	FILM BOND ADHESIVE	- 1 P.Y, ALL OVER
7	EPC300 C245T HS 3K 4.2 1250	- PATCH PLY
8	EPC300 C245T HS 3K 4.2 1250	45 1 P.Y, ALL OVER
9	EPC300 C245T HS 3K 4.2 1250	0/90 1 P.Y, ALL OVER
10	PEEL PLY	- -
CURE	VACUUM BAG AND CURE RAMP TO 80C HOLD FOR 30MIN, RAMP TO 120C HOLD FOR 120MIN, RAMP DOWN	

UBRacing

IF IN DOUBT - ASK A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL jbracing@gmail.com

MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES ± 0.5

0 DECIMAL PLACES ±0.50

1 DECIMAL PLACES ±0.25

2 DECIMAL PLACES ±0.10

3 DECIMAL PLACES ±0.02

GENERAL CONCENTRICITY 0.1% IN

ANGULAR TOLERANCE ±0.25°

COMPONENT MASS .kg

0.000

DRAWN BY RGA

MATERIAL SPEC

REPAIR/REWORK TREATMENT

COMPOSITE

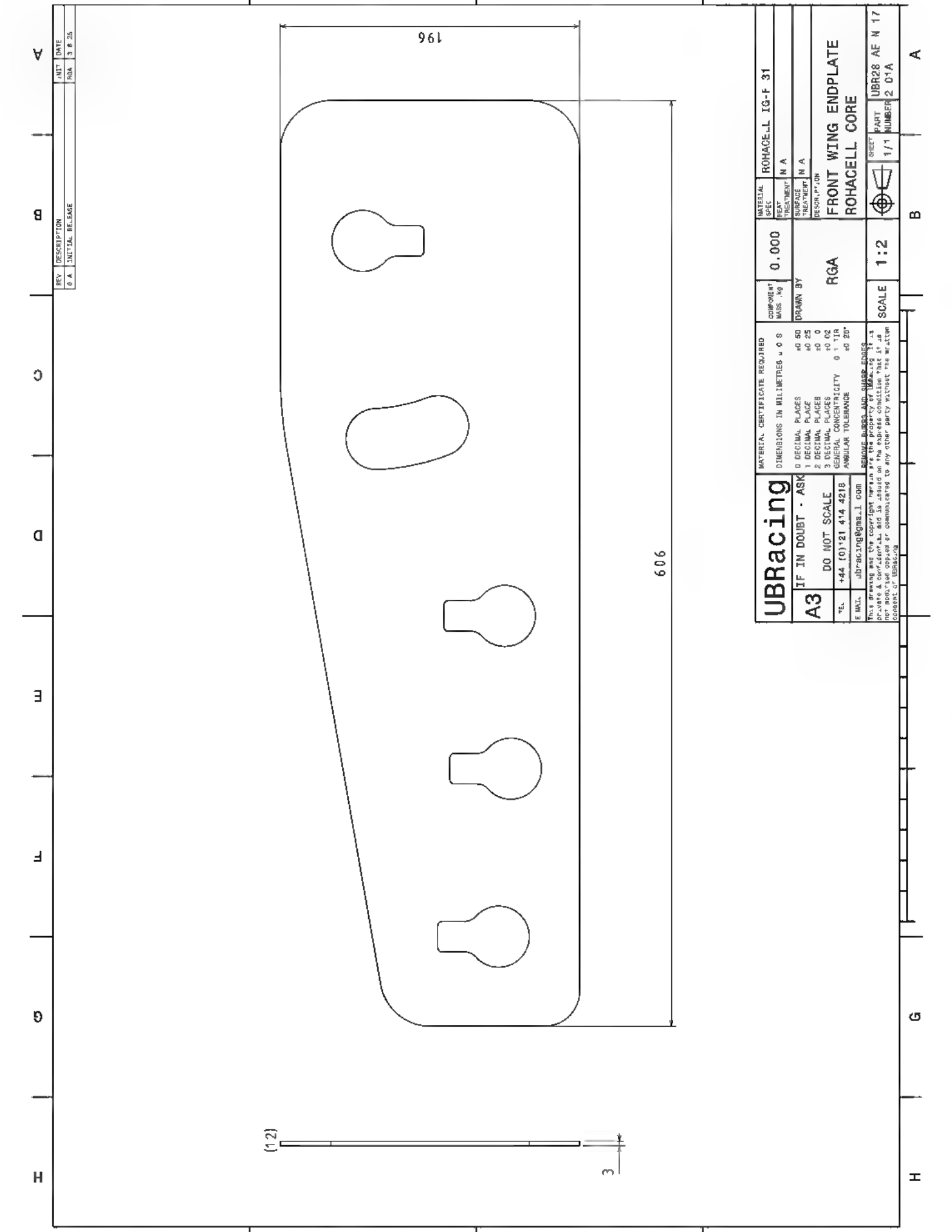
DESIGNATION

FRONT WING ENDPLATE

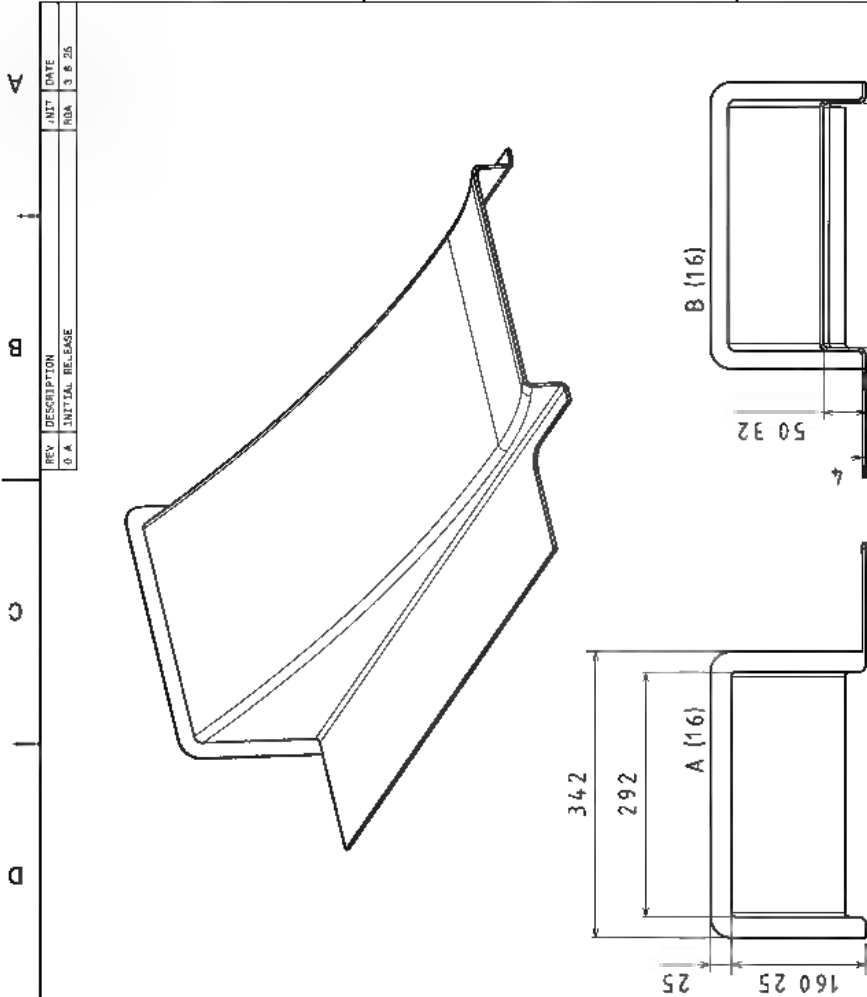
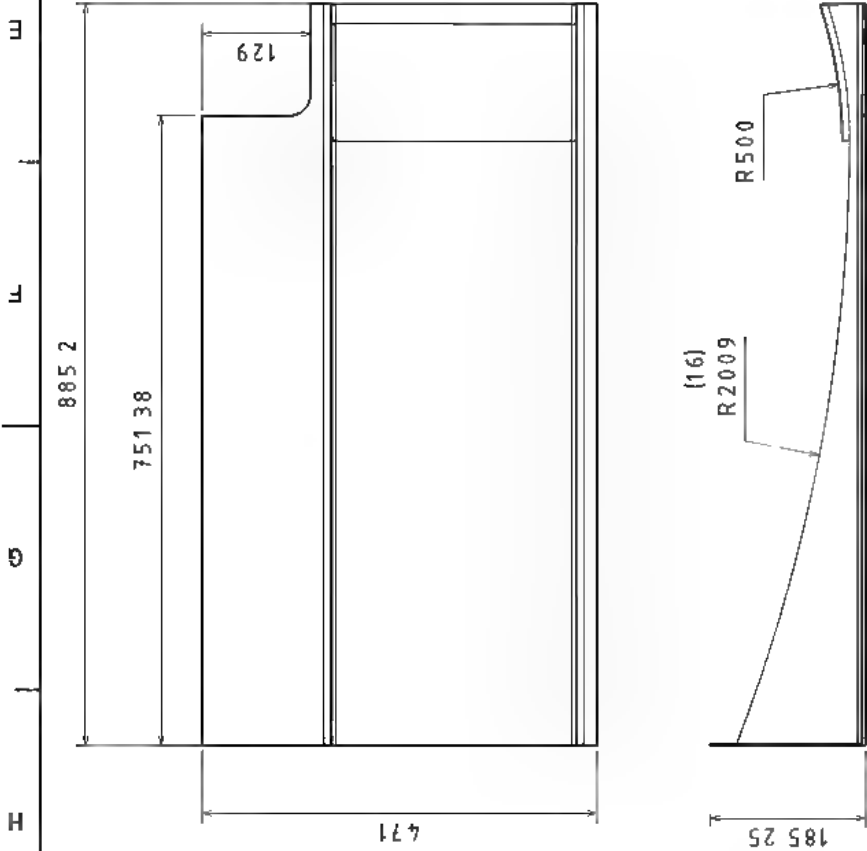
SCALE 1:2

SHEET 1/1

PART NUMBER UBR28 AF N 17



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES ± 0.8		MASS .kg		ROHACELL IG-F 31	
A3	DO NOT SCALE	0 DECIMAL PLACES ±0.50		DRAWN BY		N A	
TEL	+44 (0)121 414 4218	1 DECIMAL PLACES ±0.25		RGA		N A	
E MAIL	ub-racing@btinternet.com	2 DECIMAL PLACES ±0.10		SCALE		1:2	
This drawing and the copyright herein are the property of UBRacing. It is not to be used for any other purpose without the written consent of UBRacing.		3 DECIMAL PLACES ±0.05		FRONT WING ENDPLATE		ROHACELL CORE	
		ANGULAR TOLERANCE ± 0.1°		PART		UBR28 AF N 17	
				NUMBER		2 01A	



OP NO	MATERIAL SPEC	ORIENTATION	POSITION
1	CHECK ALL TOOLING IS CORRECT AND RELEASED		
2	EPC300 C245T HS 3K 42 1250	0/90	1 PLY, ALL OVER
3	EPC300 C245T HS 3K 42 1250	45	1 PLY, ALL OVER
4	FILM BOND ADHESIVE	-	1 PLY, ALL OVER
5	ROHACEL/NOMEX CORE AND INSERTS	-	-
6	FILM BOND ADHESIVE	-	1 PLY, ALL OVER
7	EPC300 C245T HS 3K 42 1250	-	PATCH PLY
8	EPC300 C245T HS 3K 42 1250	45	1 PLY, ALL OVER
9	EPC300 C245T HS 3K 42 1250	0/90	1 PLY, ALL OVER
10	PEEL PLY	-	-
CURE	VACUUM BAG AND CURE RAMP TO 80C HOLD FOR 30MIN, RAMP TO 120C HOLD FOR 120MIN, RAMP DOWN		

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL ubracing@gmail.com

MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES ± 0.5

0 DECIMAL PLACES ±0.50

1 DECIMAL PLACES ±0.25

2 DECIMAL PLACES ±0.10

3 DECIMAL PLACES ±0.05

GENERAL CONCENTRICITY 0.1% IN

ANGULAR TOLERANCE ±0.25°

COMPONENT MASS (kg)

0.000

DRAWN BY

RGA

MATERIAL SPEC

REPAIR/REWORK TREATMENT

COMPOSITE

N/A

DESIGNATION

SIDE DIFFUSER

SCALE

1:6

SHEET

1/1

PART NUMBER

UBR28 AF N 21

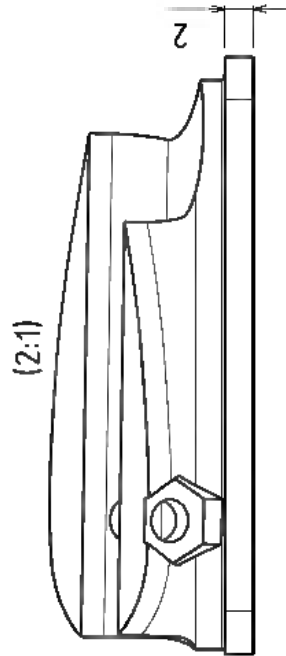
A

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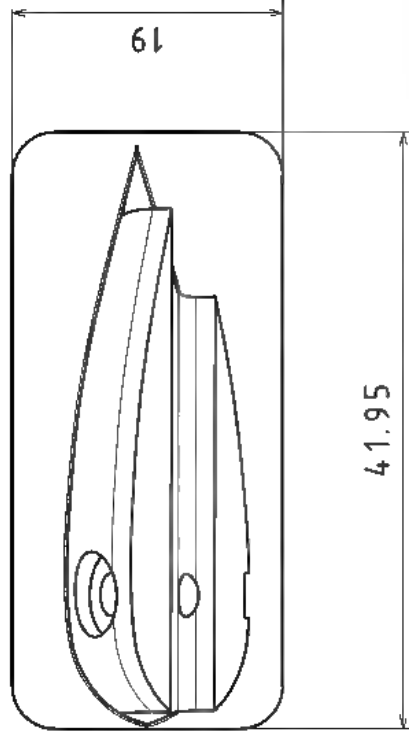
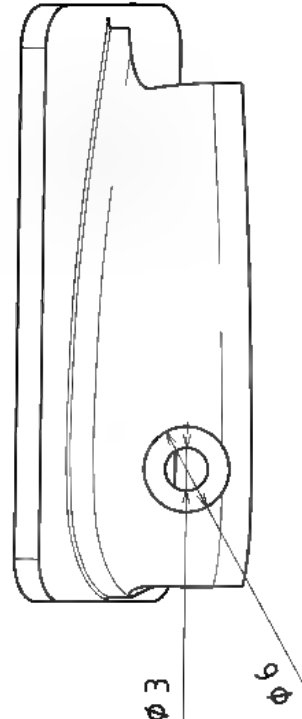
C

D

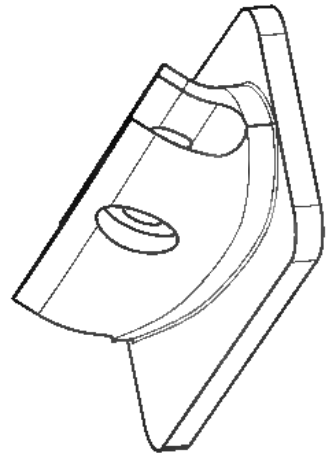
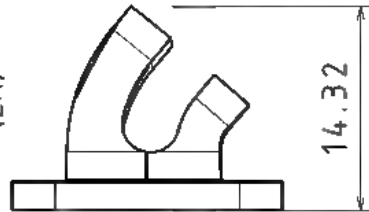
REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



(2:1)



(2:1)



UBRacing

IF IN DOUBT	ASK
A4	DO NOT SCALE
TEL	+44 (0)121 414 4218
E-MAIL	ubracings@gmail.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES 0.8	
0 DECIMAL PLACES	±0.50
1 DECIMAL PLACES	±0.25
2 DECIMAL PLACES	±0.10
3 DECIMAL PLACES	±0.02
GENERAL CONCENTRICITY	0.1 TIR
ANGULAR TOLERANCE	±0.25°

COMPONENT	0.000
MOSS (KG)	
DRAWN BY	RGA

MATERIAL	CARBON NYLON
TEST	N/A
SURFACE	N/A
FINISH	N/A
DESCRIPTION	SIDE DIFFUSER SUPPORT
MOUNT	P1

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SCALE	2:1
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SHEET	1/1
PART	UBR28_AE_N
NUMBER	291_01A

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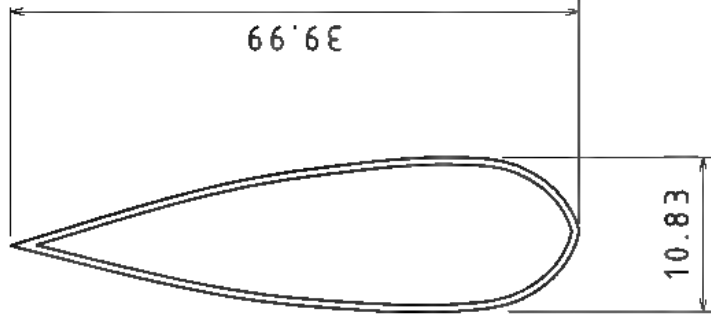
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25

310

4



(1:2)

3

LAMINATE TABLE		
OP NO.	MATERIAL SPEC	ORIENTATION POSITION
1	CHECK ALL TOOLING IS CORRECT AND RELEASED	
2	EPC300-C245T-HS-3K-42-1250	45 1 PLY, ALL OVER
3	EPC300-C245T-HS-3K-42-1250	0/90 1 PLY, ALL OVER
CURE	VACUUM BAG AND CURE RAMP TO 80C, HOLD FOR 30MIN, RAMP TO 120C, HOLD FOR 120MIN, RAMP DOWN	

2

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPOSITE	
A4	IF IN DOUBT ASK	DIMENSIONS IN MILLIMETRES 0.8		0.000	
	DO NOT SCALE	0 DECIMAL PLACES ±0.50		DRAWN BY	
	TEL +44 (0)121 414 4218	1 DECIMAL PLACES ±0.25		RGA	
	E-MAIL ubracing@gmail.com	2 DECIMAL PLACES ±0.10		DESCRIPTION	
		3 DECIMAL PLACES ±0.02		SIDE DIFFUSER SUPPORT	
		GENERAL CONCENTRICITY 0.1 TIR		SHEET PART	
		ANGULAR TOLERANCE ±0.25°		1/1 NUMBER	
		REMOVE BURRS AND SHARP EDGES		UBR28_AE_N	
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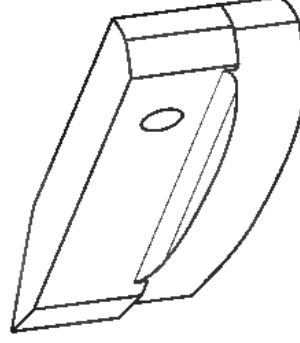
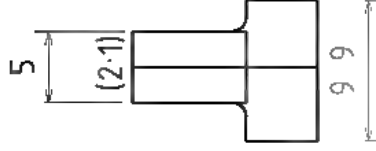
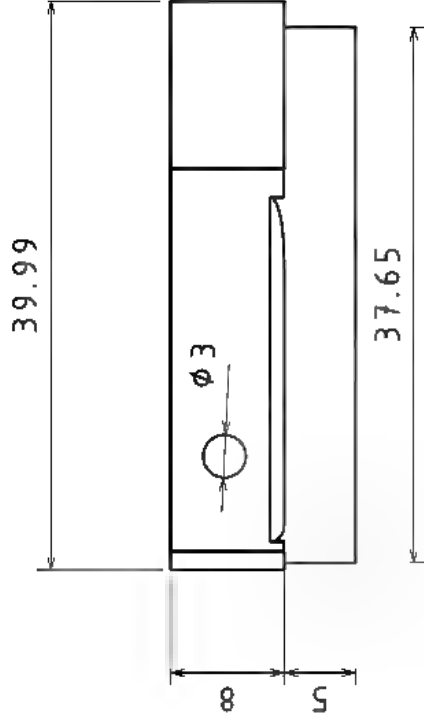
A


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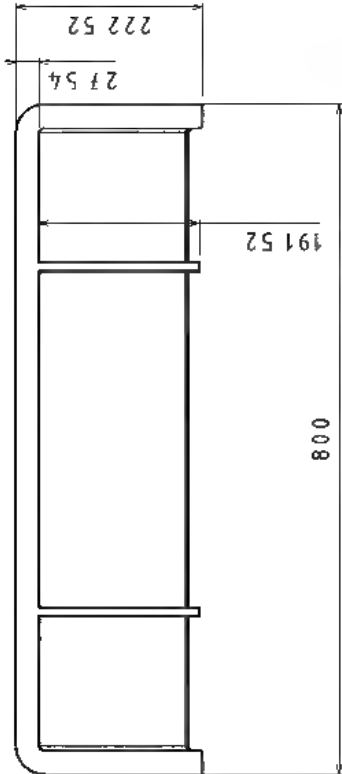
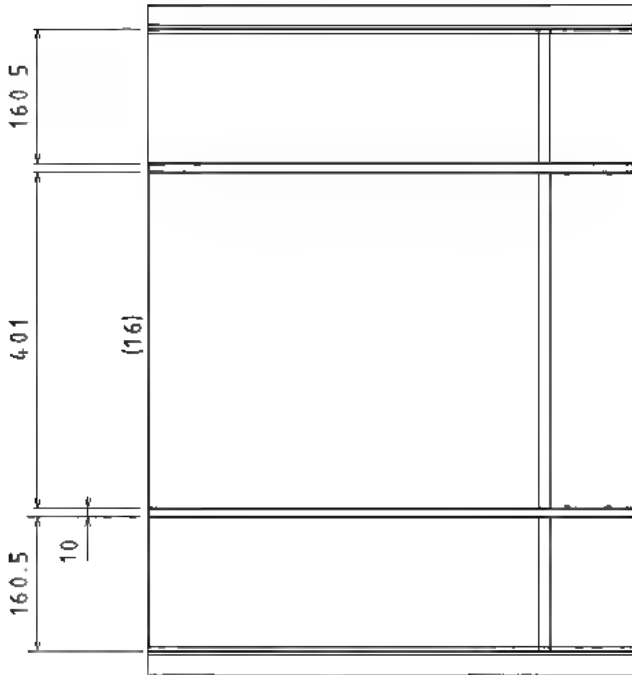
REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 6 25



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.000		CARBON NYLON	
A4	IF IN DOUBT ASK	DIMENSIONS IN MILLIMETRES 0.8		DRAWN BY		RGA		BEST TREATMENT	
	DO NOT SCALE	0 DECIMAL PLACES ±0.50		DESCRIPTION				SURFACE FINISH	
		1 DECIMAL PLACES ±0.25						N/A	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES ±0.10		SCALE		2:1			
E-MAIL ubracing@gmail.com		3 DECIMAL PLACES ±0.02							
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		ANGULAR TOLERANCE ±0.25°							
		REMOVE BURRS AND SHARP EDGES							

A

D



LAMINATE TABLE			
OP NO	MATERIAL SPEC	ORIENTATION	POSITION
1	CHECK ALL TOOLING IS CORRECT AND RELEASED		
2	EPC300-C245T-HS-3K-42-1250	0/90	1 P.Y, ALL OVER
3	EPC300-C245T-HS-3K-42-1250	45	1 P.Y, ALL OVER
4	FILM BOND ADHES VE	-	1 P.Y, ALL OVER
5	ROMACELL/NOMEX CORE AND INSERTS	-	-
6	FILM BOND ADHES VE	-	1 P.Y, ALL OVER
7	EPC300-C245T-HS-3K-42-1250	-	PATCH P.Y
8	EPC300-C245T-HS-3K-42-1250	45	1 P.Y, ALL OVER
9	EPC300-C245T-HS-3K-42-1250	0/90	1 P.Y, ALL OVER
10	PEEL PLY	-	-
CURE			
VACUUM BAG AND CURE RAMP TO 80C HOLD FOR 30MIN, RAMP TO 120C, HOLD FOR 120MIN RAMP DOWN			

(16)

579.8

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL ubrac@gamma.i.com

MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES u o s

0 DECIMAL PLACES +0 50

1 DECIMAL PLACES +0 25

2 DECIMAL PLACES +0 0

3 DECIMAL PLACES +0 02

GENERAL CONCENTRICITY 0 0.171

ANGULAR TOLERANCE +0 25'

REMOVE BUBBLES AND SQUARE EDGES

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COMPONENT MASS (kg)

0.000

DRAWN BY

RGA

SCALE

1:1

SHEET

1/1

PART NUMBER

UBR28 AF N 31

NUMBER

2 01A

MATERIAL SPEC

COMPOSITE

REACT TREATMENT

N A

SURFACE TREATMENT

N A

DESIGN P/TON

REAR DIFFUSER

A

B

G

H

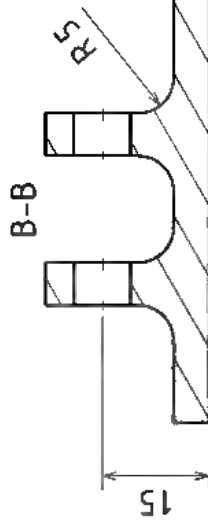
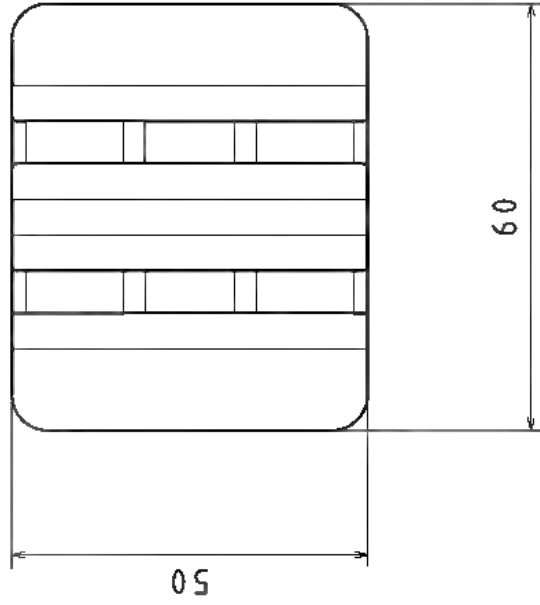
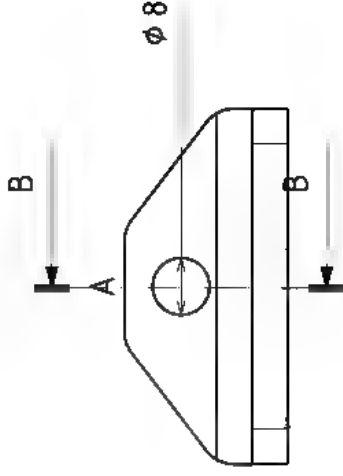
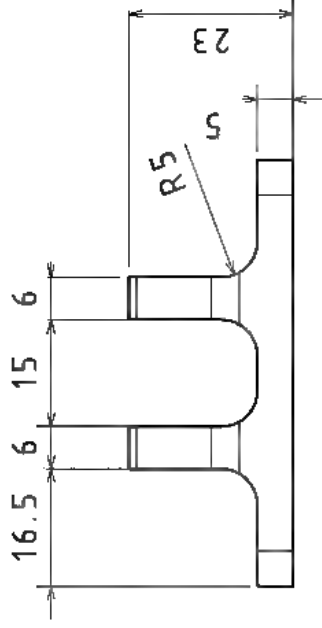
A

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C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



UBRacing

IF IN DOUBT ASK

A4 DO NOT SCALE

TEL +44 (0)121 414 4218

E-MAIL ubracing@gmail.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES	0 9
0 DECIMAL PLACES	±0 50
1 DECIMAL PLACES	±0 25
2 DECIMAL PLACES	±0 10
3 DECIMAL PLACES	±0 02
GENERAL CONCENTRICITY	0 1 TIR
ANGULAR TOLERANCE	±0 25°

COMPONENT NO. 000	DRAWN BY RGA
-------------------	--------------

MATERIAL SPEC.	CARBON-NYLON
HEAT TREATMENT	N A
SURFACE FINISH	N A
DESCRIPTION	REAR DIFFUSER SUPPORT CLEVIS

REMOVE BURRS AND SHARP EDGES
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SCALE	1:1
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SHEET PART	UBR28_AE_N
1/1 NUMBER	322_01A

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D

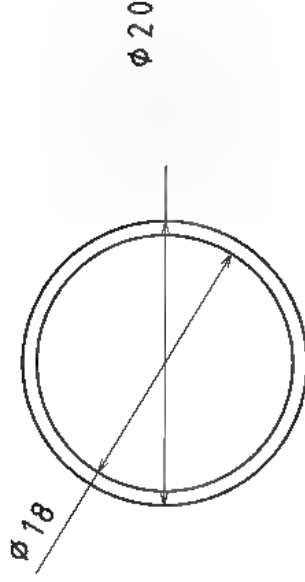
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



378.64

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPOUND		BOUGHT-IN COMPOSITE	
A4	IF IN DOUBT ASK	DIMENSIONS IN MILLIMETRES ± 0.8		MOD (V6)		N/A	
	DO NOT SCALE	0 DECIMAL PLACES ±0.50		DRAWN BY		N/A	
	TEL +44 (0)121 414 4218	1 DECIMAL PLACES ±0.25		RGA		REAR DIFFUSER SUPPORT	
E-MAIL ubracing@btinternet.com		2 DECIMAL PLACES ±0.10		SCALE		TUBE	
		3 DECIMAL PLACES ±0.02		2:1		REAR DIFFUSER SUPPORT	
		GENERAL CONCENTRICITY 0.1 TIR		SHEET PART		UBR28_AE_N	
		ANGULAR TOLERANCE ±0.25°		NUMBER		323_01A	
		REMOVE BURRS AND SHARP EDGES					
		This drawing and the copyright herein are the property of UBRacing. It is to be used as a reference only and is not to be used for manufacturing purposes without the written consent of UBRacing.					

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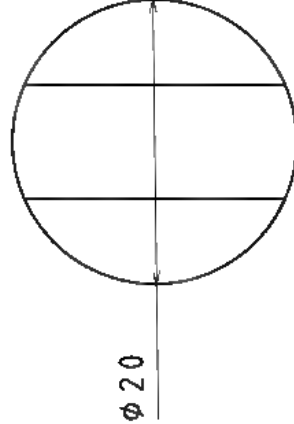
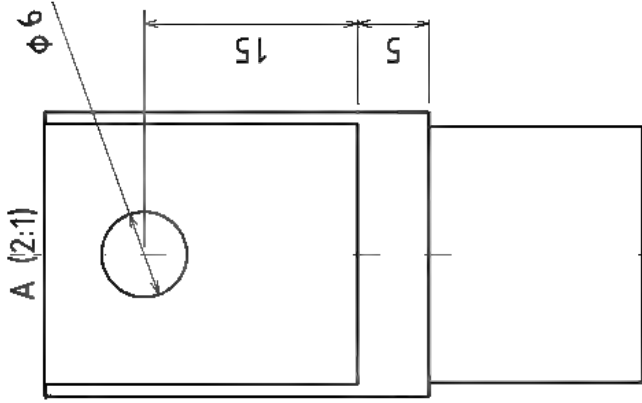
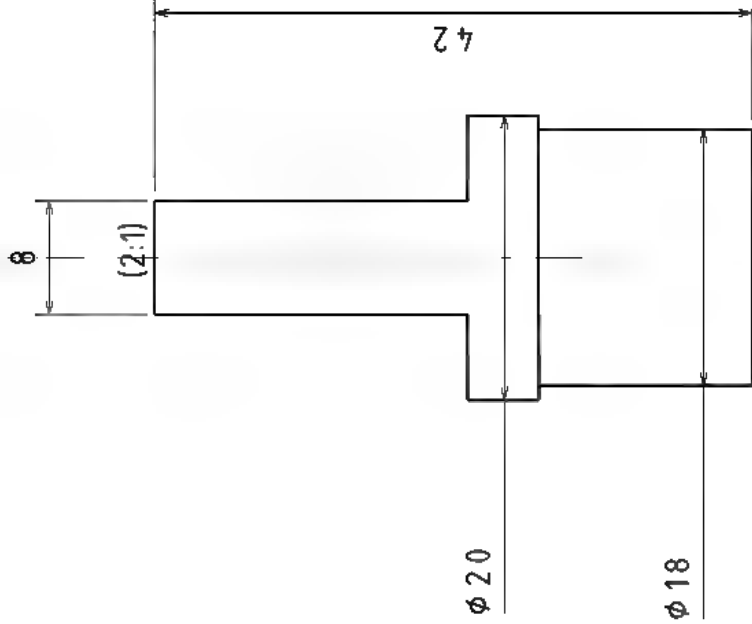
A

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C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.000		6061 ALUMINIUM	
A4		IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES		DRAWN BY		REVISION	
DO NOT SCALE		0 DECIMAL PLACES		±0.50		0.000		N/A	
TEL +44 (0)121 414 4218		1 DECIMAL PLACES		±0.25		0.000		N/A	
E-MAIL ubracing@gmail.com		2 DECIMAL PLACES		±0.10		0.000		N/A	
		3 DECIMAL PLACES		±0.02		0.000		N/A	
		GENERAL CONCENTRICITY		0.1 TIR		0.000		N/A	
		ANGULAR TOLERANCE		±0.25°		0.000		N/A	
		REMOVE BURRS AND SHARP EDGES		REVISION		0.000		N/A	
		This drawing and the copyright herein are the property of UBRacing. It is hereby acknowledged that it is not to be reproduced, copied or communicated in any other way without the written consent of UBRacing.		SCALE		2:1		REAR DIFFUSER SUPPORT	
				UPPER INSERT		0.000		UPPER INSERT	
				1/1		1/1		UBR28_AE_N	
				324.01A		324.01A		324.01A	

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D

A

B

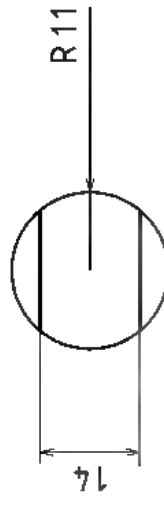
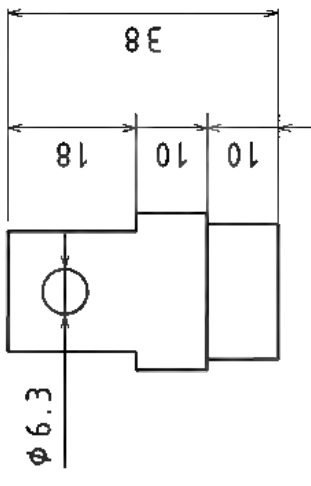
C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



A



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.000		6061 ALUMINIUM	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES 0.8		AND TAG		DRAWN BY		REPT	
A4		0 DECIMAL PLACES		±0.50		RGA		TREATMENT	
DO NOT SCALE		1 DECIMAL PLACES		±0.25		REAR DIFFUSER STRUT		SURFACE	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES		±0.10		LOWER INSERT		FINISH	
E-MAIL ubracing@gmail.com		3 DECIMAL PLACES		±0.02		DESCRIPTION		REAR DIFFUSER STRUT	
		GENERAL CONCENTRICITY		0.1 TIR		REAR DIFFUSER STRUT		LOWER INSERT	
		ANGULAR TOLERANCE		±0.25°		SCALE		1:1	
		REMOVE BURRS AND SHARP EDGES		REMOVE BURRS AND SHARP EDGES		SHEET		1/1	
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								325_01A	

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REV	DESCRIPTION	TNIT	DATE
D A	INITIAL RELEASE	PBA	3 6 26

[13]

1131

35 47

056

27 961

LAMINATE TABLE

LAMINATE TABLE		
OP NO	MATERIAL SPEC	ORIENTATION POSITION
1	CHECK ALL TOOLING IS CORRECT AND RELEASED	
2	EPC300-C2+5T-HS-3K-a-2-1250	45
3	EPC300-C2+5T-HS-3K-a-2-1250	0/90
4	MYLAR FILM	-
CURE	VACUUM BAG AND CURE RAMP TO 80C, HOLD FOR 30MIN RAMP TO 120C HOLD FOR 120MIN RAMP DOWN	

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT MASS	0.000	MATERIAL SPEC	CFRP
A3	IF IN DOUBT - ASK	DIMENSIONS IN MILLIMETRES ± 0.5		DRAWN BY		HEAT TREAT	N/A
	DO NOT SCALE	0 DECIMAL PLACES	±0.50			SURFACE TREATMENT	N/A
		1 DECIMAL PLACE	±0.25			DESCRIPTION	
		2 DECIMAL PLACES	±0.10			REAR WING SECOND ELEMENT	
		3 DECIMAL PLACES	±0.05				
GENERAL CONCENTRICITY	0.1 TIR			RGD			
ANGULAR TOLERANCE	±0.25°						
REMOVE BUBBLES AND CHASE EDGES		This drawing and the copyright herein are the property of UBRacing. It is to be used as a confidential aid and is issued on the express condition that it is not to be reproduced or communicated to any other party without the written consent of UBRacing.		SCALE	1:3	SHEET NUMBER	1/1
UBRacing@brail.com						PART NUMBER	UBR28 AF N 42

850

116.43

22.86

(13)

(13)

OP NO	MATERIAL SPEC	ORIENTATION	POSITION
1	CHECK ALL TOOLING IS CORRECT AND RELEASED		
2	EPC300 C245T HS 3K 42 1250	45	1 PLY, ALL OVER
3	EPC300 C245T HS 3K 42 1250	0/90	1 PLY, ALL OVER
4	MYLAR FILM	-	-
CURE	VACUUM BAG AND CURE RAMP TO 80C HOLD FOR 30MIN RAMP TO 120C HOLD FOR 120MIN RAMP DOWN		

LAMINATE TABLE

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4219

E MAIL ubracing@btinternet.com

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MATERIAL CERTIFICATE REQUIRED
DIMENSIONS IN MILLIMETRES TO 0.5
0 DECIMAL PLACES TO 50
1 DECIMAL PLACES TO 25
2 DECIMAL PLACES TO 10
3 DECIMAL PLACES TO 02
GENERAL CONCENTRICITY 0.1 TIR
ANGULAR TOLERANCE 40/20

COMPONENT MASS (kg)

DRAWN BY

RGH

SCALE

1:3

SHEET

1/1

MATERIAL SPEC

REAR WING THIRD ELEMENT

CFRP

N/A

N/A

N/A

UBR28 AF N 43

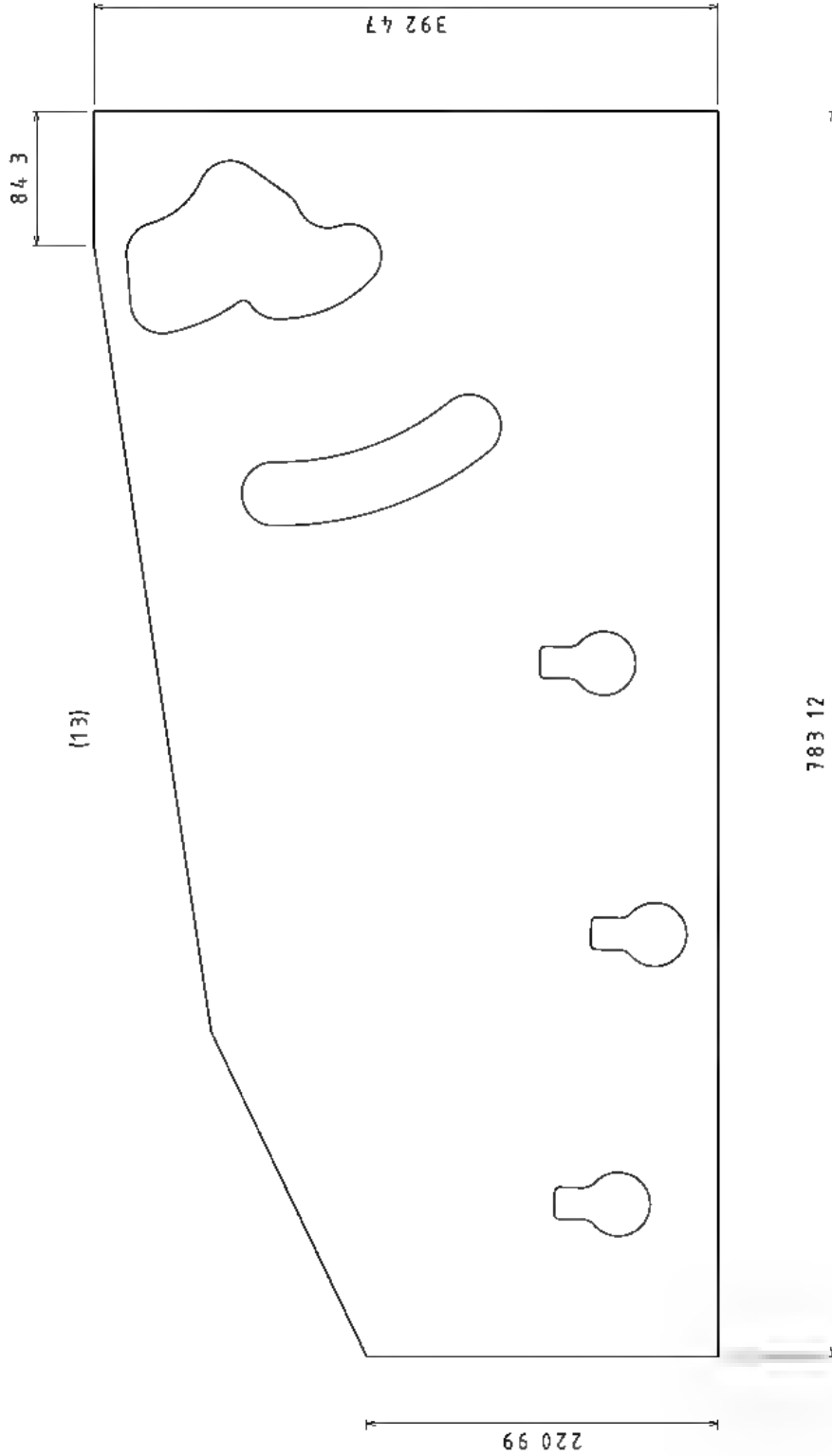
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REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	RDA	3 8 26



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES ± 0.8		MASS .kg		ROHACELL IG-F 31 (5MM)	
A3		0 DECIMAL PLACES ±0.50		DRAWN BY		N A	
DO NOT SCALE		1 DECIMAL PLACES ±0.25		RGA		N A	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES ±0.02		SCALE		1:3	
E MAIL ubracing@qma.l.com		3 DECIMAL PLACES ±0.01		SHEET		1/1	
		ANGULAR TOLERANCE ±0.20°		PART		UBR28 AF N 44	
				NUMBER		4 01A	
				DESCRIPTION		REAR WING ENDPLATE UPPER ROHACELL CORE	
				REMARKS			

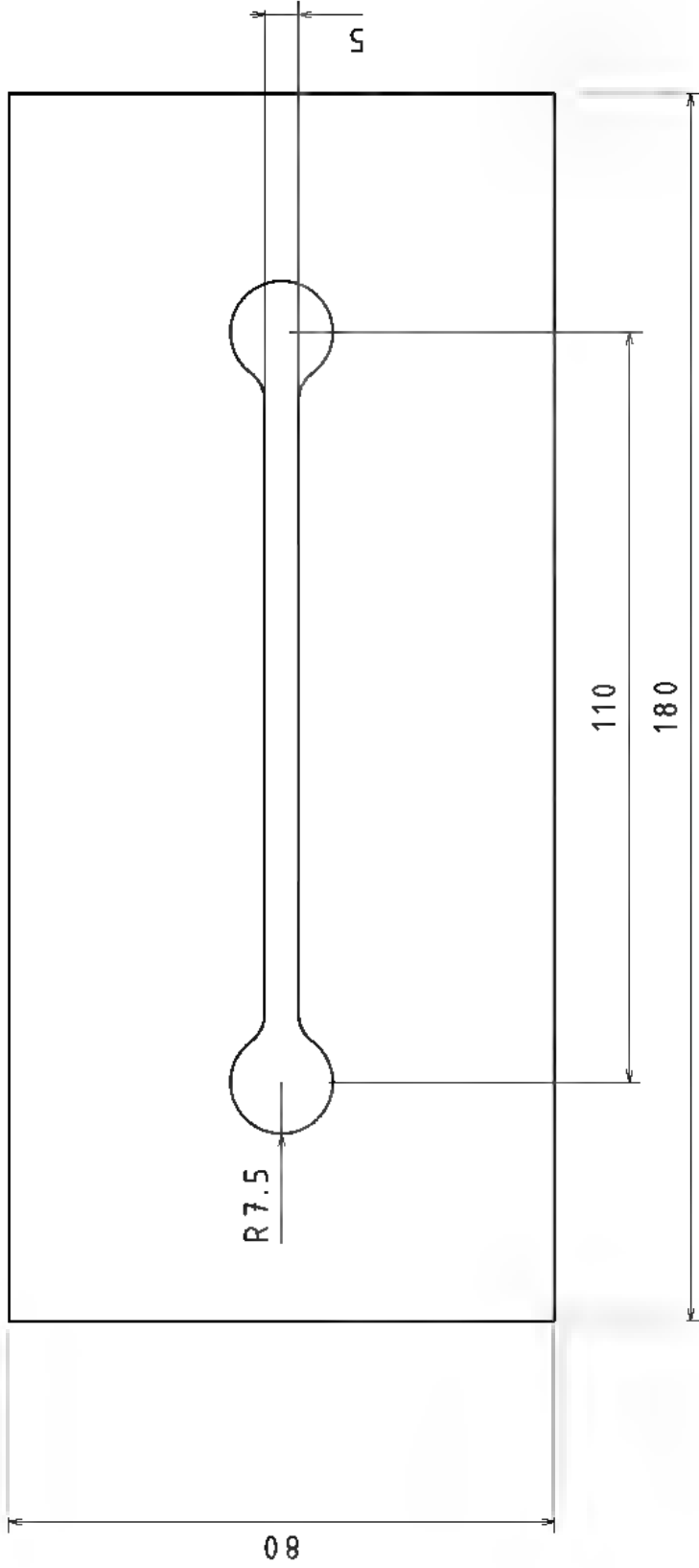
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.000		ROHACELL IG-F31(5MM)	
A4	IF IN DOUBT ASK	DIMENSIONS IN MILLIMETRES 0.8		DRAWN BY		RGA		N A	
	DO NOT SCALE	0 DECIMAL PLACES ±0.50		DESCRIPTION		REAR WING ENDPLATE		N A	
	TEL +44 (0)121 414 4218	1 DECIMAL PLACES ±0.25		REAR WING ENDPLATE		LOWER ROHACELL CORE		N A	
E-MAIL ubracing@gmail.com		2 DECIMAL PLACES ±0.10		GENERAL CONCENTRICITY 0.1 TIR		1:1		SHEET PART UBR28_AE_N	
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REMOVE BURRS AND SHARP EDGES		REMOVE BURRS AND SHARP EDGES		1:1		1:1		1:1	

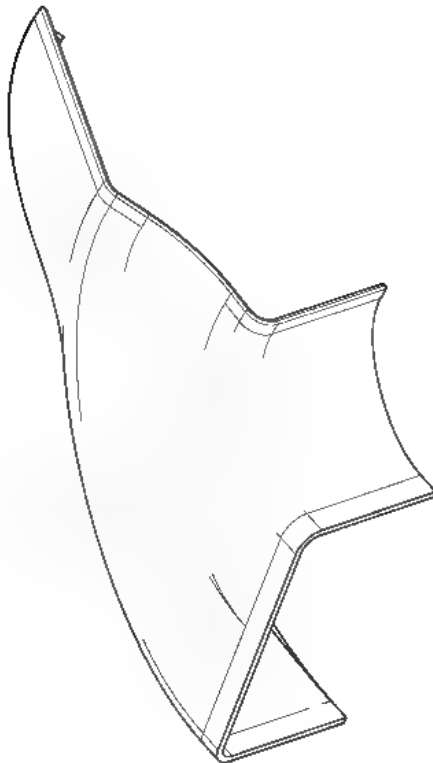
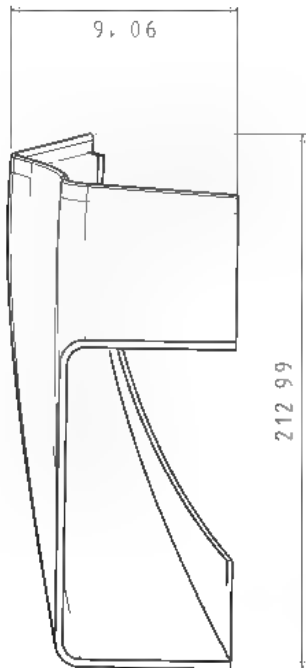
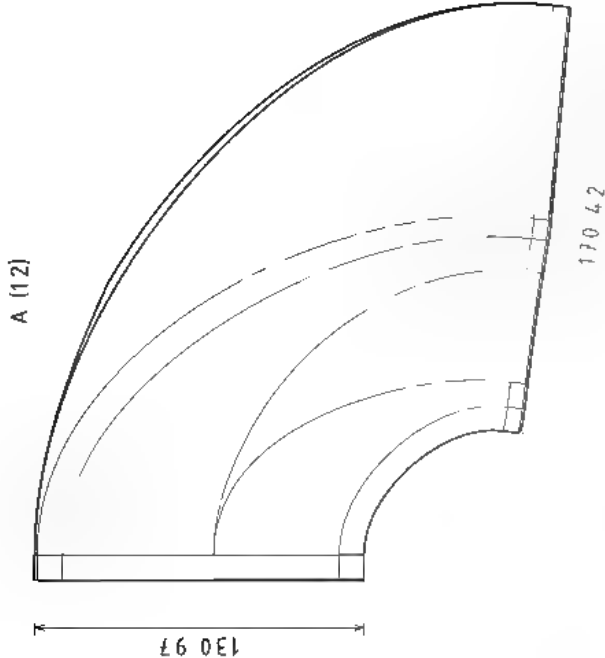
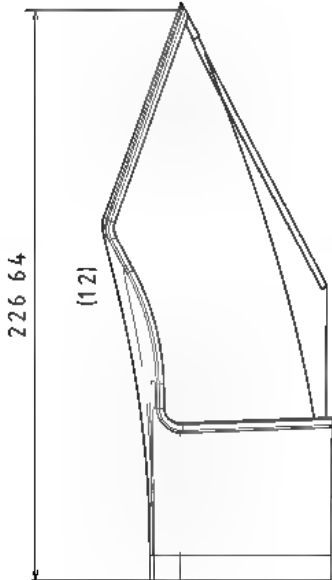
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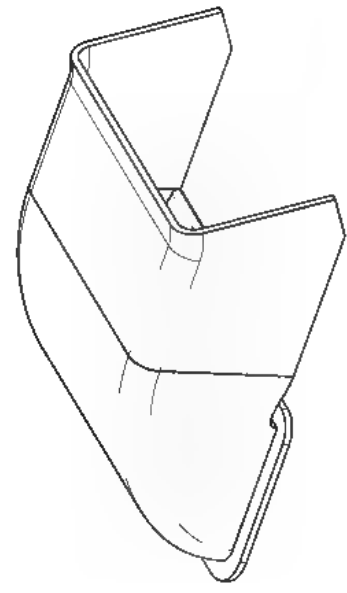
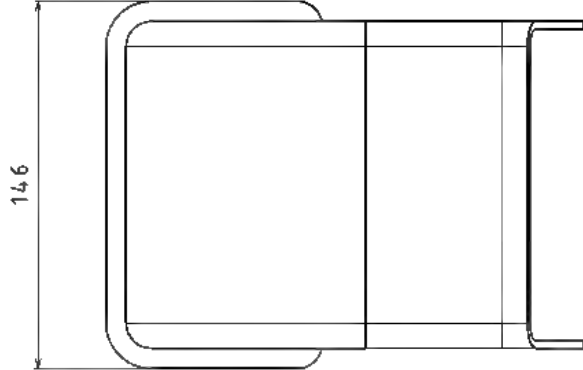
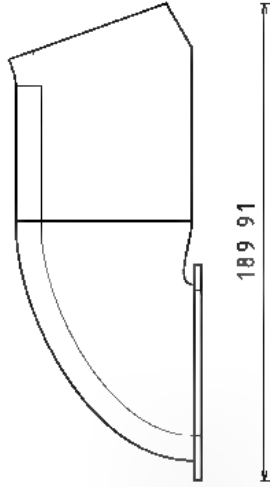
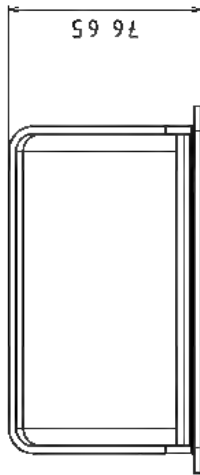
A B C D E F G H

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	RDA	3 8 25



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT MASS - kg	0.000	MATERIAL WEAT TREA TMENT	P.LA N A
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES U O S		DRAWN BY		SURFACE TREATMENT	N A
A3		0 DECIMAL PLACES				DESIGNATION	
DO NOT SCALE		1 DECIMAL PLACES					
TEL +44 (0)121 414 4218		2 DECIMAL PLACES					
E MAIL jbracing@a1.com		3 DECIMAL PLACES					
		GENERAL CONCENTRICITY 0.1 MIN					
		ANGULAR TOLERANCE					
		REMOVE SQUARE AND SHARP EDGES					
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REV DESCRIPTION /INT DATE
0 A INITIAL RELEASE RDA 3 8 26



UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL jbracing@bt.com

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MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES U O S

0 DECIMAL PLACES ±0.50

1 DECIMAL PLACES ±0.25

2 DECIMAL PLACES ±0.10

GENERAL CONCENTRICITY 0.1% TIR

ANGULAR TOLERANCE ±0.20°

COMPONENT MASS .Kg

0.000

DRAWN BY

RGA

MATERIAL SPEC

REAR ACCESS PANEL

DESIGNATION

REAR ACCESS PANEL

COOLING DUCT

SCALE

1:2

P.A

N A

N A

N A

N A

N A

N A

SHEET

1/1

NUMBER

2

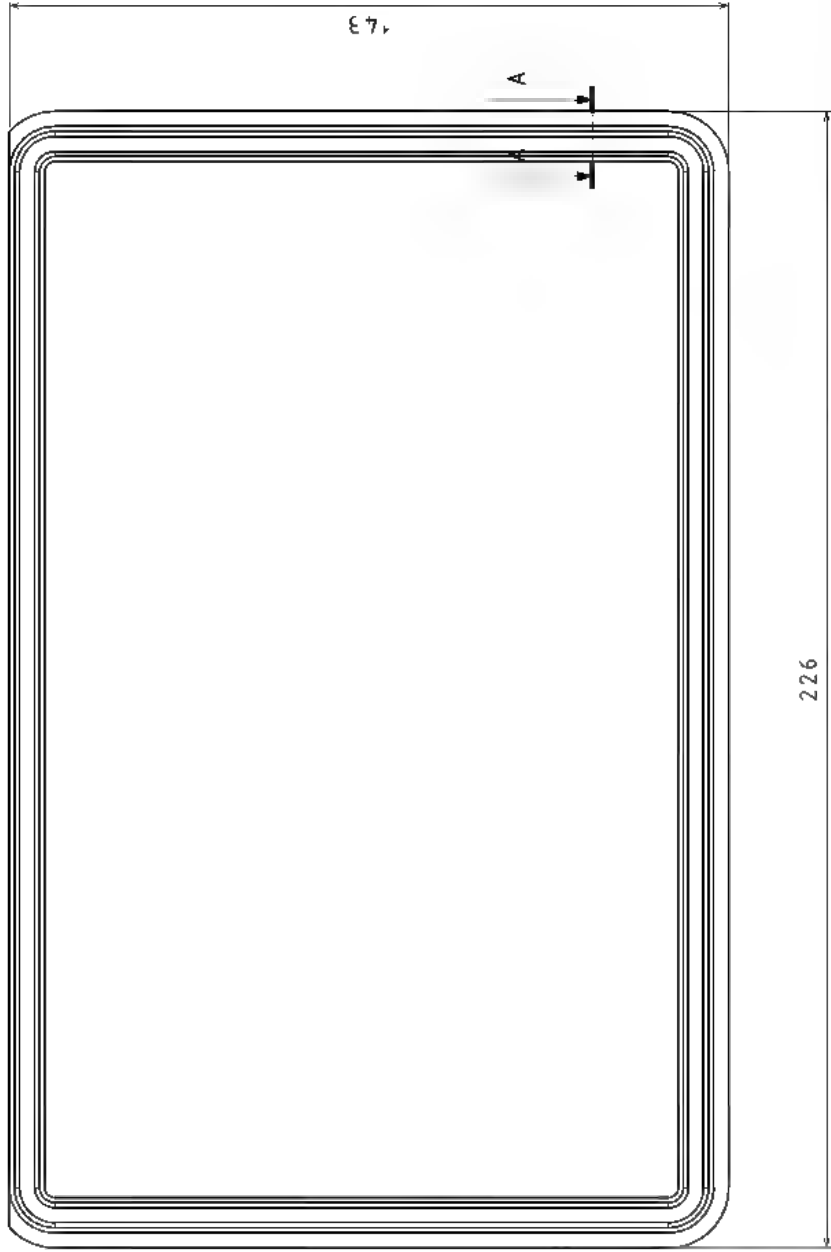
OF 4

OF 4

OF 4

H G F E D C B A

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	RDA	3 8 26

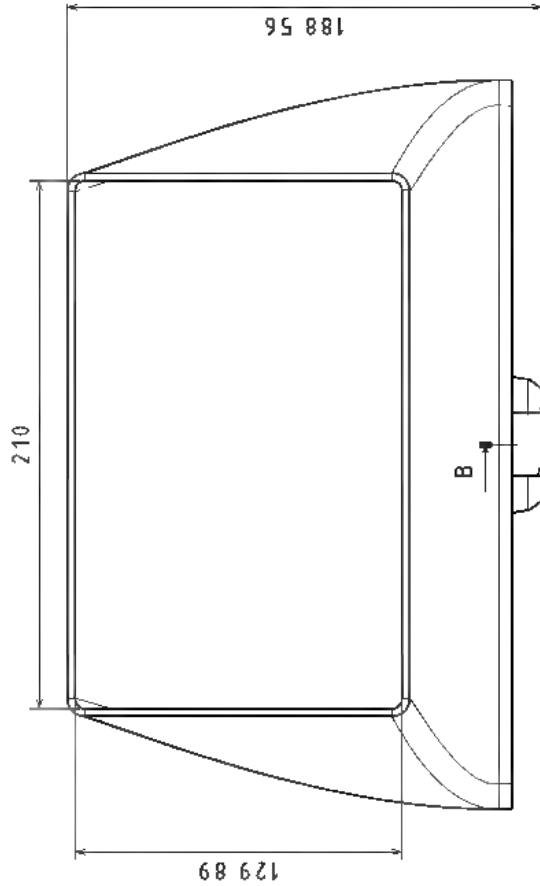
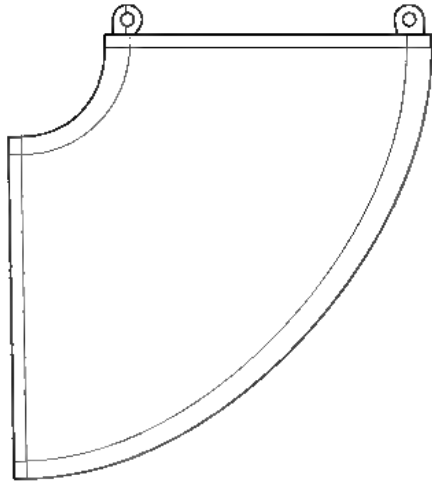
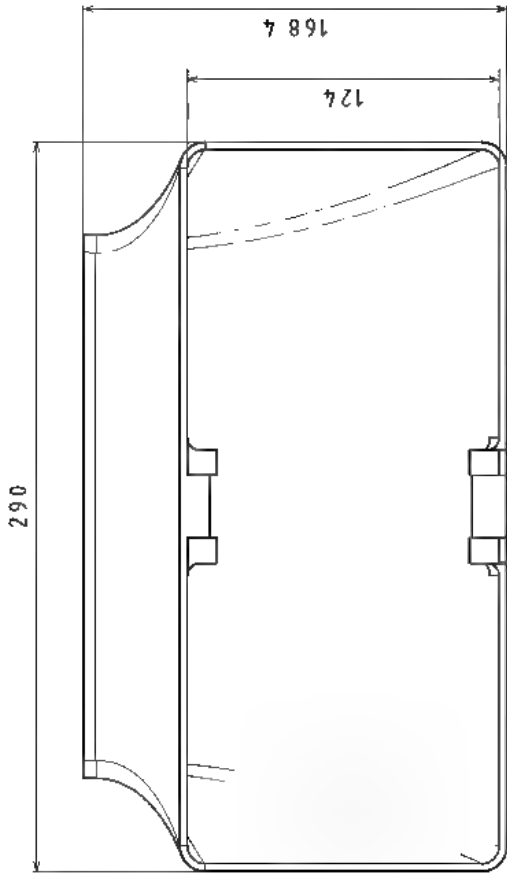


UBRacing		MATERIAL SPEC		P.A	
IF IN DOUBT - ASK		0.000		N A	
A3		DRAWN BY		DESIGNATION	
DO NOT SCALE		RGA		ACCESS PANEL INTAKE SEAL	
TEL +44 (0)121 414 4218		SCALE 1:1		SHEET 1/1	
E MAIL jbracing@bt.com		PART NUMBER		UBR28 AF N 45	
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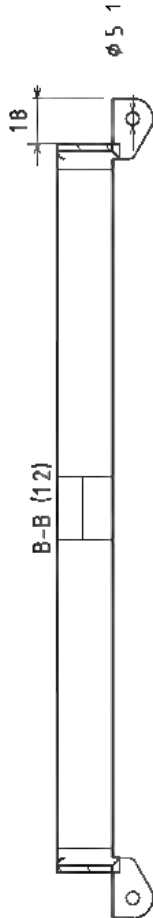
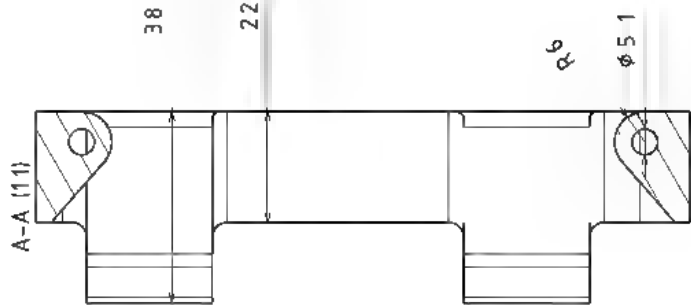
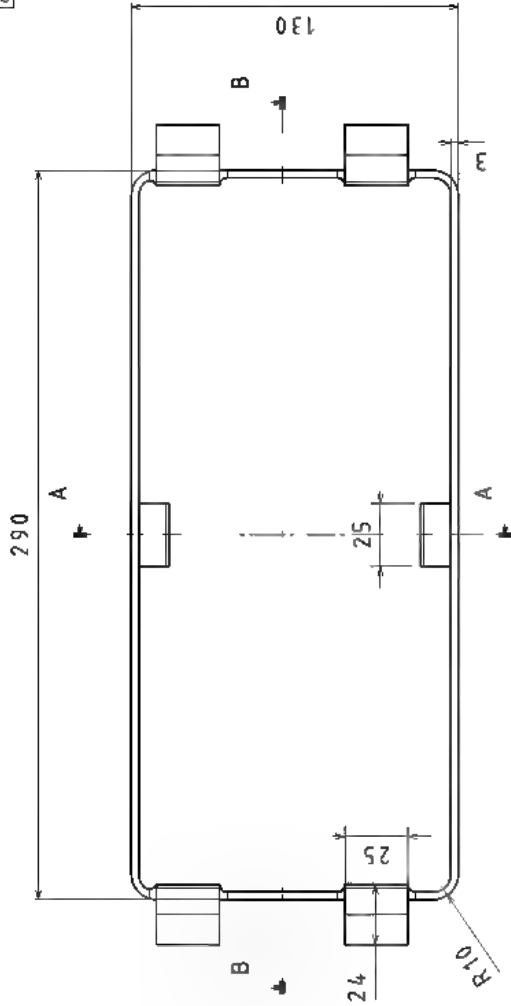
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REV	DESCRIPTION	DATE
0 A	INITIAL RELEASE	3 8 26



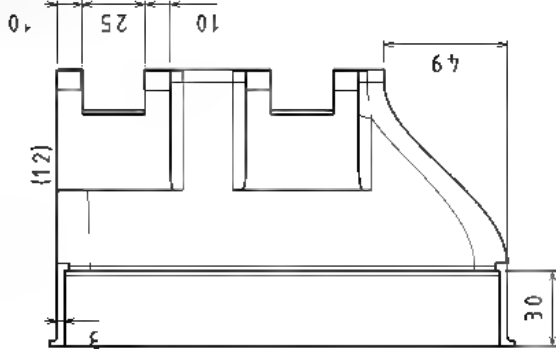
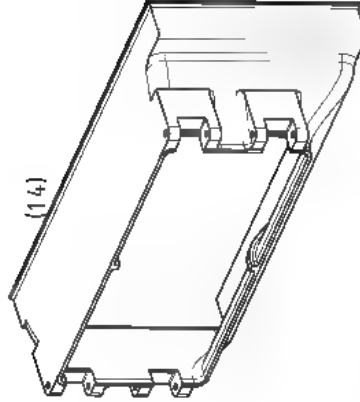
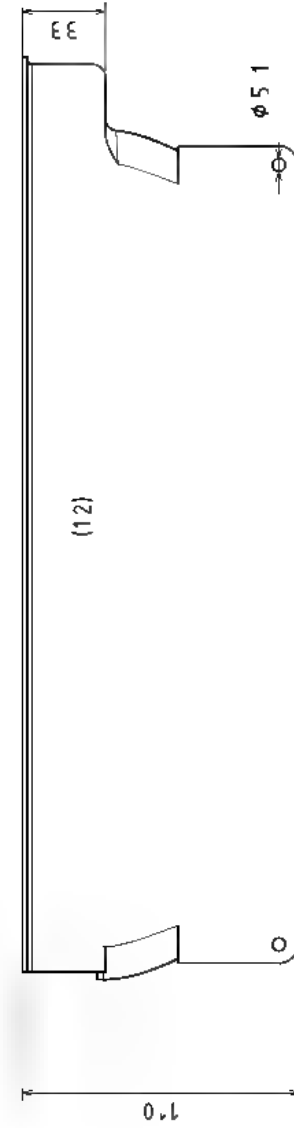
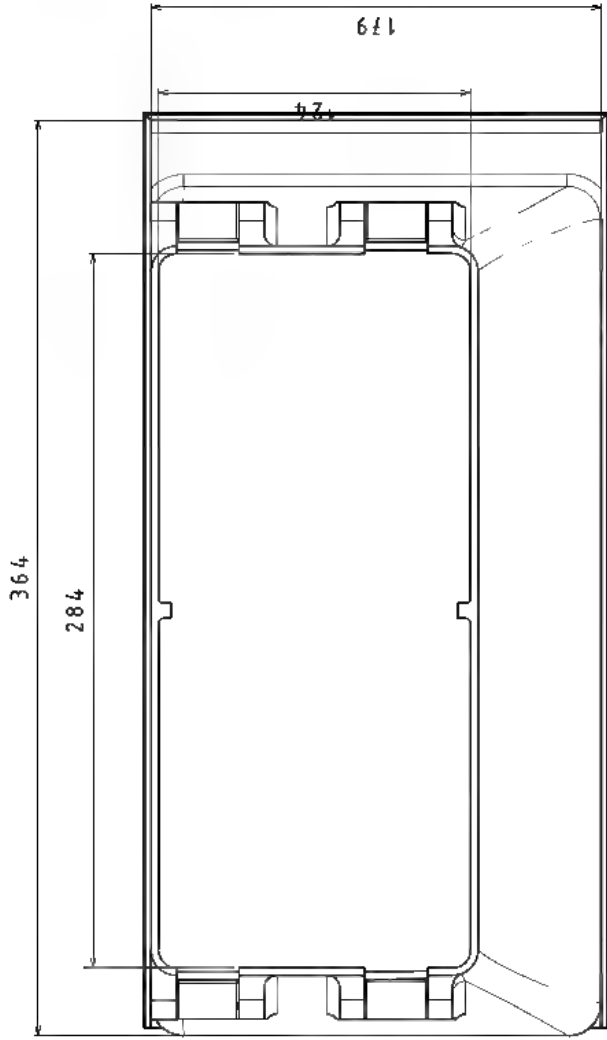
UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES U O S		MASS .Kg		SPEC	
A3		0 DECIMAL PLACES		DRAWN BY		P.A	
DO NOT SCALE		1 DECIMAL PLACES		RGA		N A	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES		SCALE 1:2		N A	
E MAIL jbracing@ma.l.com		3 DECIMAL PLACES		SHEET 1/1		N A	
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		ANGULAR TOLERANCE		NUMBER 4 01A			



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL			
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES U O S		MASS .kg		SPEC			
A3	DO NOT SCALE	0 DECIMAL PLACES		DRAWN BY	RGA	REACTIVITY			
		1 DECIMAL PLACES				TEMPERATURE			
		2 DECIMAL PLACES				SURFACE TREATMENT			
		3 DECIMAL PLACES				DESIGN P'N/ON			
GENERAL CONCENTRICITY		0.1 TIR		COOLING INTAKE AND RAD					
ANGULAR TOLERANCE		40.25°		CHASSIS MOUNT					
TEL +44 (0)121 414 4218		SCALE		1:2		SHEET			
E MAIL jbracing@mgm.a1.com		REMOVE SQUARES AND SQUARE EDGES		1:2		UBR28 AF N 45			
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		1:2		1:2		NUMBER			
		1:2		1:2		5 01A			
		1:2		1:2		A			

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REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	RDA	3 8 26



UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL jbracing@bt.com

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MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES u.o.s

0 DECIMAL PLACES

1 DECIMAL PLACES

2 DECIMAL PLACES

GENERAL CONCENTRICITY

ANGULAR TOLERANCE

COMPONENT MASS .kg

0.000

DRAWN BY

RGA

MATERIAL SPEC

0.000

REVISION

0.000

TREATMENT

0.000

DESIGNATION

FORWARD RAD HOUSING

1:2

SCALE

1:2

SHEET

1/1

NUMBER

UBR28 AF N 45

1/1

PART

UBR28 AF N 45

NUMBER

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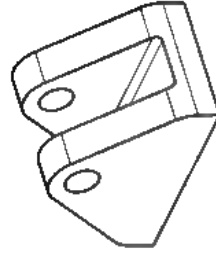
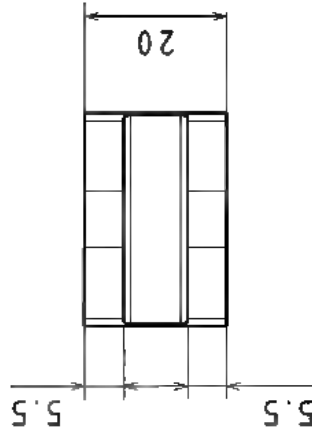
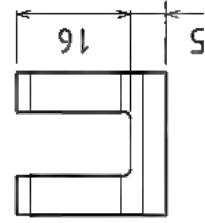
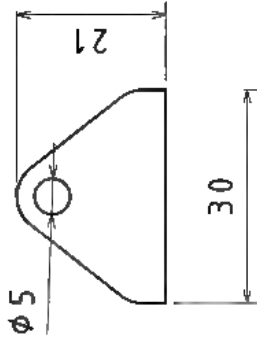
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.000		CARBON NYLON	
A4		IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES ± 0.8		DRAWN BY		REVISION	
DO NOT SCALE		0 DECIMAL PLACES ± 0.50		1 DECIMAL PLACES ± 0.25		RGA		N A	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES ± 0.10		3 DECIMAL PLACES ± 0.02		DESCRIPTION		N A	
E-MAIL ubracing@gmail.com		GENERAL CONCENTRICITY 0.1 TIR		ANGULAR TOLERANCE ± 0.25°		RADIATOR HOUSING SUPPORT CLEVIS		DESCRIPTION	
REMOVE BURRS AND SHARP EDGES		SCALE 1:1		SHEET PART NUMBER 1/1 UBR28_AE_N 459_01A		1:1		1	
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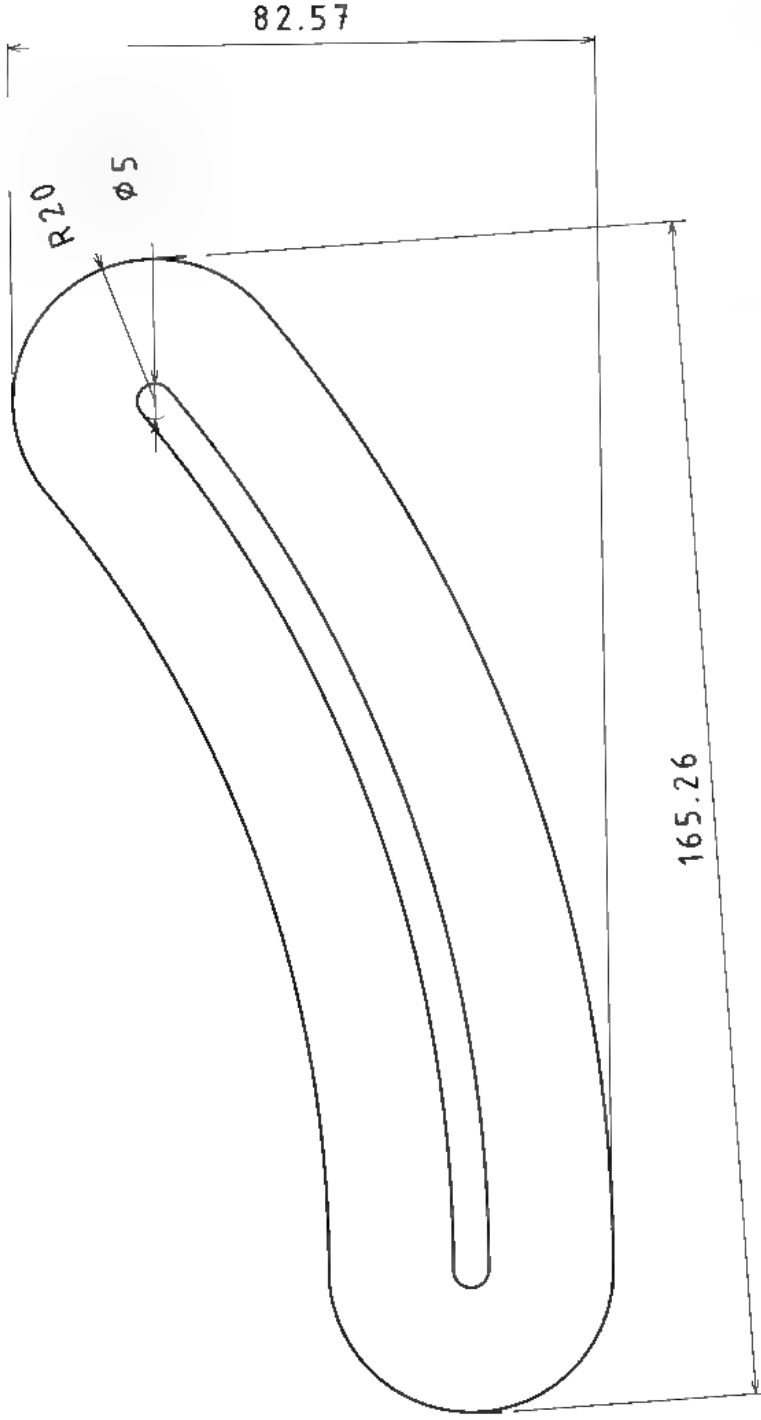
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.000		3MM PLYWOOD	
A4	IF IN DOUBT ASK	DIMENSIONS IN MILLIMETRES ± 0.8		DRAWN BY		RGA		N/A	
	DO NOT SCALE	0 DECIMAL PLACES ± 0.50		N/A					
	TEL +44 (0)121 414 4218	1 DECIMAL PLACES ± 0.25		N/A					
E-MAIL	ubracing@gmail.com	2 DECIMAL PLACES ± 0.10		REAR WING ENDPLATE		SECOND ELEMENT INSERT		DESCRIPTION	
		3 DECIMAL PLACES ± 0.02		REAR WING ENDPLATE		SECOND ELEMENT INSERT		REAR WING ENDPLATE	
		GENERAL CONCENTRICITY 0 - 1 TIR		SCALE		1:1		SHEET PART	
		ANGULAR TOLERANCE ± 0.25°		REMOVE BURRS AND SHARP EDGES		UBR28_AE_N		NUMBER 487_01A	
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25

UBRacing		MATERIAL CERTIFICATE REQUIRED DIMENSIONS IN MILLIMETRES ± 0.8				COMPONENT MOSS (0)	0.000	3MM PLYWOOD	
A4	IF IN DOUBT	ASK	0 DECIMAL PLACES ± 0.50				DRAWN BY	RGA	REAR WING ENDPLATE THIRD ELEMENT INSERT
	DO NOT SCALE		1 DECIMAL PLACES ± 0.25						
	TEL	+44 (0)1121 414 4218	2 DECIMAL PLACES ± 0.10						
E-MAIL	ubracings@gmail.com		GENERAL CONCENTRICITY 0 ± 1 TIR						
			ANGULAR TOLERANCE ± 0.25°						
			REMOVE BURS AND SHARP EDGES						
			This drawing and the copyright herein are the property of UBRacing. It is drawn to scale and is based on the express condition that it is not reproduced, copied or communicated in any other way without the written consent of UBRacing.						
			SCALE				1:1		SHEET PART 1/1 UBR28_AE_N NUMBER 488_01A

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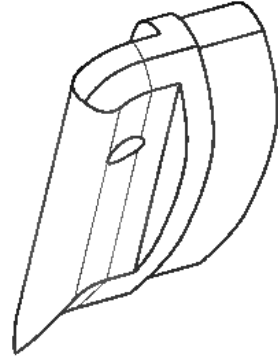
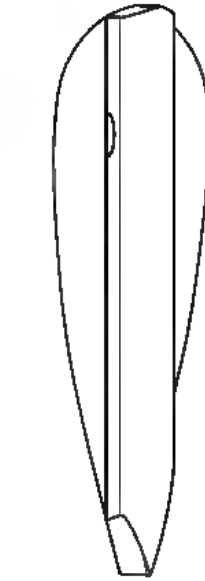
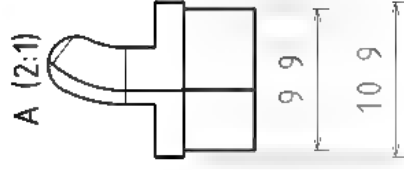
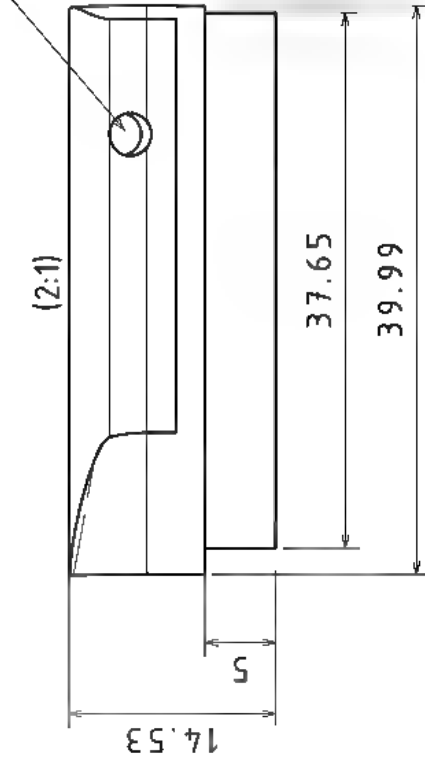
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25

5MM DIAMETER



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.000		CARBON NYLON	
A4		IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES ± 0.8		DRAWN BY		REST TREATMENT	
DO NOT SCALE		0 DECIMAL PLACES ± 0.50		1 DECIMAL PLACES ± 0.25		DESCRIPTION		SURFACE FINISH	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES ± 0.10		3 DECIMAL PLACES ± 0.02		RG		N A	
E-MAIL ubracing@gmail.com		GENERAL CONCENTRICITY 0.1 TIR		ANGULAR TOLERANCE ± 0.25°		SIDE DIFFUSER SUPPORT		N A	
		REMOVE BURRS AND SHARP EDGES		SCALE 2:1		MOUNT P2		SHEET PART	
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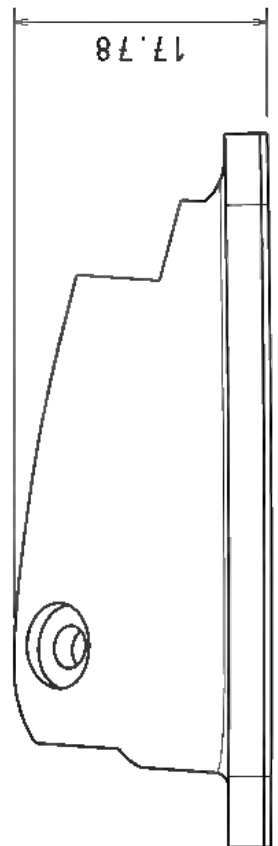
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01A	INITIAL RELEASE	RGA	3 8 25

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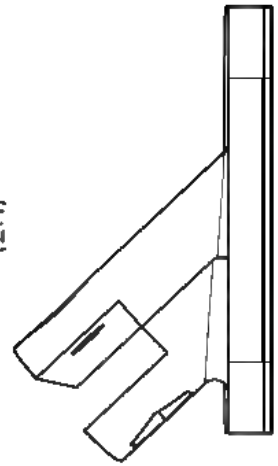
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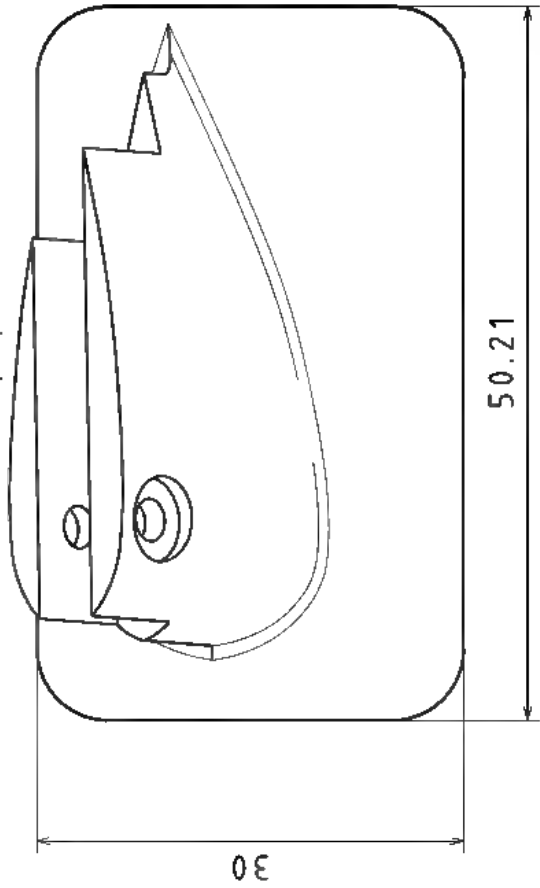
1



(2:1)

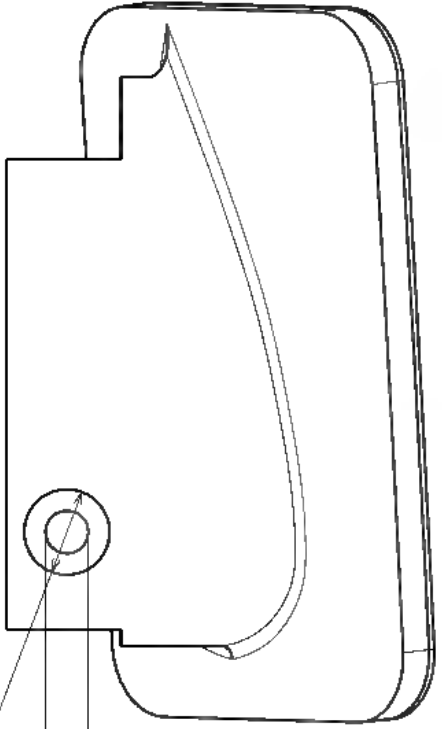


(2:1)



Ø 6

Ø 3



UBRacing

IF IN DOUBT	ASK
A4	DO NOT SCALE
TEL	+44 (0)121 414 4218
E-MAIL	ubracings@gmail.com

MATERIAL CERTIFICATE REQUIRED	DIMENSIONS IN MILLIMETRES
0 DECIMAL PLACES	±0.50
1 DECIMAL PLACES	±0.25
2 DECIMAL PLACES	±0.10
3 DECIMAL PLACES	±0.02
GENERAL CONCENTRICITY	0.1 TIR
ANGULAR TOLERANCE	±0.25°

COMPONENT NO. (V.U.)	0.000
DRAWN BY	RGA

MATERIAL SPEC	CARBON-NYLON
HEAT TREATMENT	N/A
SURFACE FINISH	N/A
DESCRIPTION	SIDE DIFFUSER SUPPORT
MOUNT	P4

REMOVE BURRS AND SHARP EDGES
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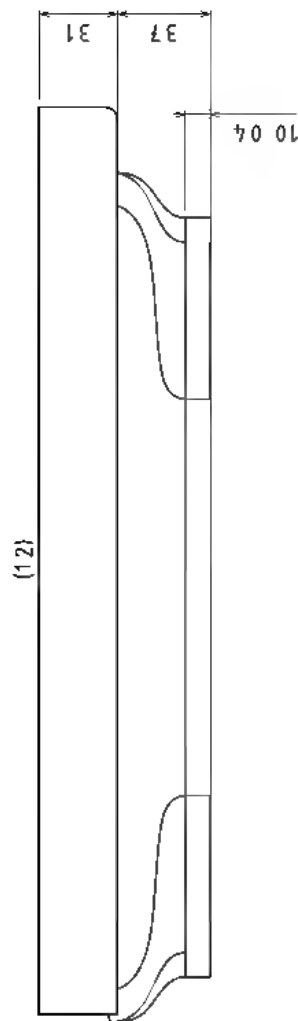
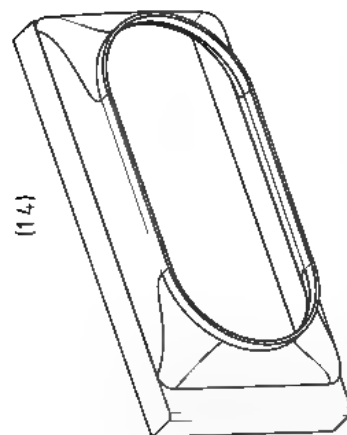
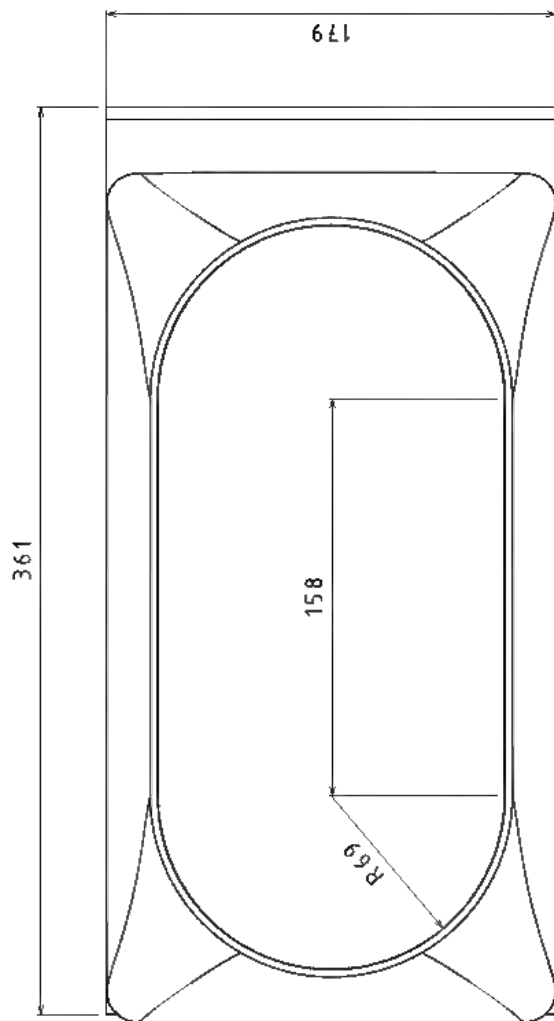
SCALE	2:1
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SHEET PART	UBR28_AE_N
1/1 NUMBER	2932_01A

D

A

REV	DESCRIPTION	INIT	DATE
0 A	INITIAL RELEASE	RDA	3 6 26



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT MASS : kg	0.000	MATERIAL SPEC	P.A
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES u O S		DRAWN BY		PIEAT	N A
A3		0 DECIMAL PLACES ±0 50 1 DECIMAL PLACE ±0 25 2 DECIMAL PLACES ±0 0 3 DECIMAL PLACES ±0 02 GENERAL CONCENTRICITY 0 1 TIR ANGULAR TOLERANCE ±0 25°				SURFACE TREATMENT	N A
	DO NOT SCALE					DESOR P.Y.ON	
TEL	+44 (0) 121 414 4218			RGa	REAR RAD HOUSING		
E MAIL	ubrac@ng8ma.ll.com	REMOVE SURFACES AND SHARP EDGES This drawing and the copyright herein are the property of UBRacing. It is not to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the written consent of UBRacing Ltd.		SCALE	1:2	 SHEET 1/1 PART NUMBER UBR28 AF N 45 NUMBER 62 01A	

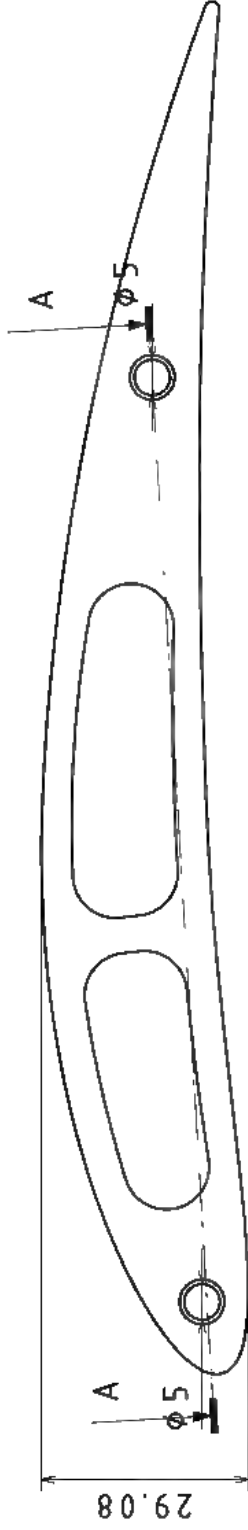
A

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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



193

29.08

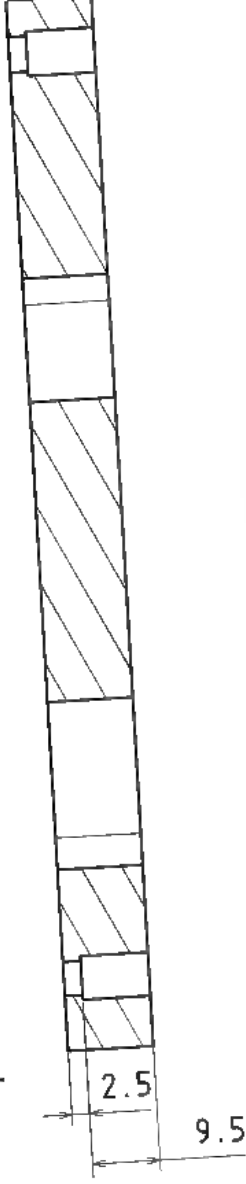
5

A

5


12

A-A



2.5

9.5

UBRacing		MATERIAL CERTIFICATE REQUIRED DIMENSIONS IN MILLIMETRES ± 0.8		COMPONENT MAGS (H)	0.000	ANALYST SPEC	PLA			
A4	IF IN DOUBT	ASK	0 DECIMAL PLACES ± 0.50	DRAWN BY	RGA	HEAT	N A			
	DO NOT SCALE	1 DECIMAL PLACES ± 0.25	SURFACE			N A				
	TEL	2 DECIMAL PLACES ± 0.10	DESCRIPTION							
	E-MAIL	3 DECIMAL PLACES ± 0.02	NACA 7412 STANDARD STRUCTURAL INSERT							
		ANGULAR TOLERANCE ± 0.25°	REMOVE BURRS AND SHARP EDGES	SCALE		2:1		SHEET 1/1	PART NUMBER	UBR28_AE_N 112 200S_01A
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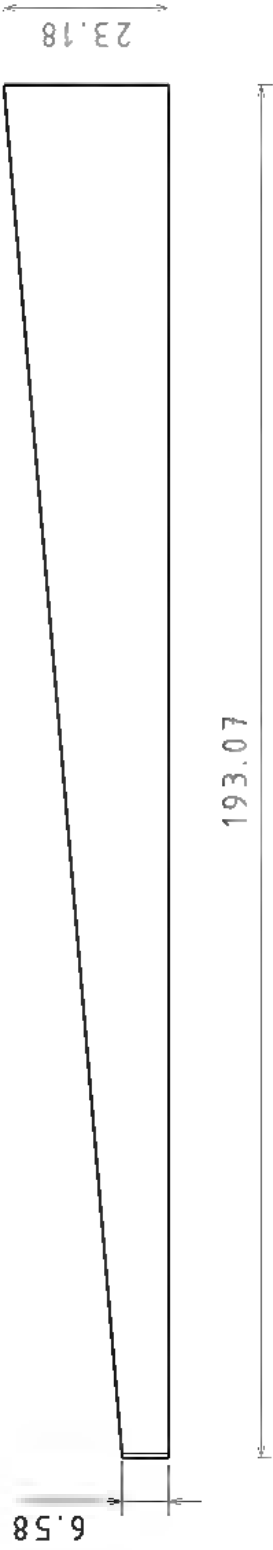
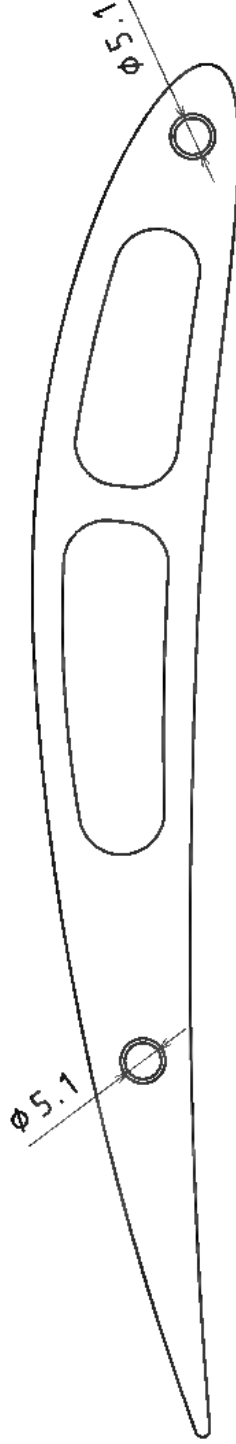
A

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D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.000		PLA	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES		NO. (V.U.)		DRAWN BY		REST	
A4		DO NOT SCALE		0 DECIMAL PLACES		±0.50		TREATMENT	
TEL		+44 (0)121 414 4218		1 DECIMAL PLACES		±0.25		SURFACE	
E-MAIL		ub racing@gmail.com		2 DECIMAL PLACES		±0.10		FINISH	
				GENERAL CONCENTRICITY		±0.02		DESCRIPTION	
				ANGULAR TOLERANCE		0 - 1 TIR		SLANTED INTERNAL FISH	
								FOR NACA7412 200MM	
								SCALE	
								1:1	
								SHEET PART	
								1/1	
								UBR28_AE_N	
								NUMBER	
								7412_200S	

REMOVE BURRS AND SHARP EDGES
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A

D

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B

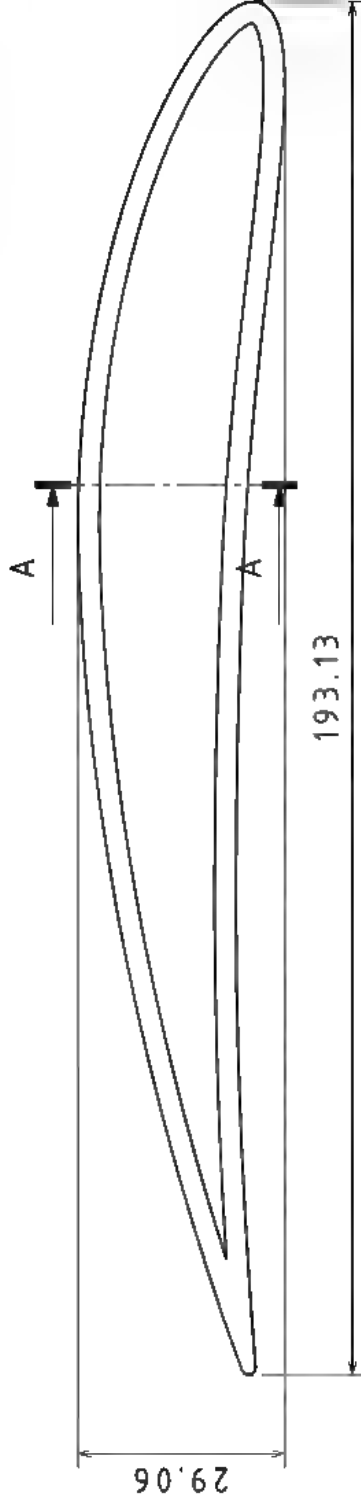
C

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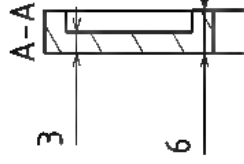
REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	RGA	3 8 25

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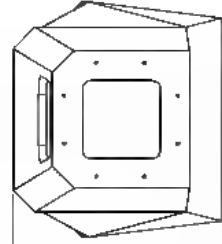
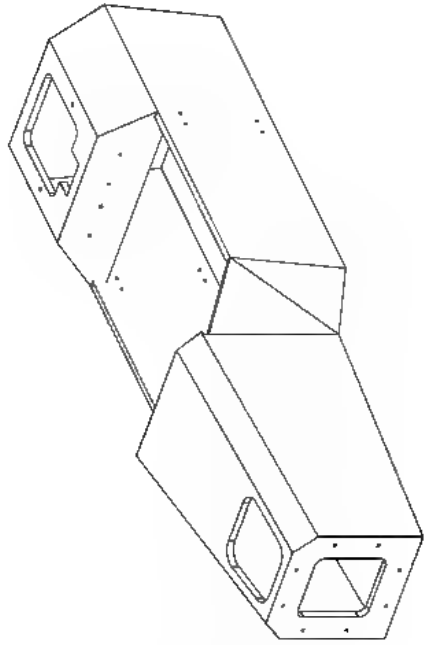
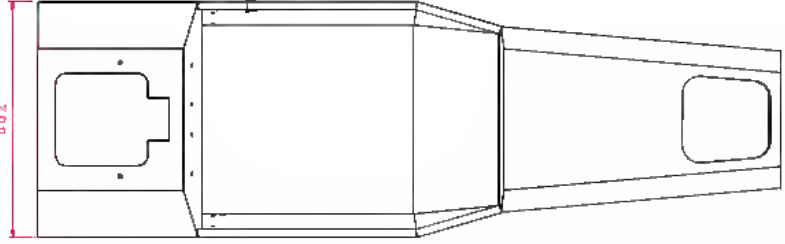
1

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT	0.000	PLA	
		DIMENSIONS IN MILLIMETRES 0.09		WALL THICKNESS		N/A	
A4	IF IN DOUBT ASK	0 DECIMAL PLACES ±0.50		DRAWN BY	RGA	N/A	
		1 DECIMAL PLACES ±0.25					
	DO NOT SCALE	2 DECIMAL PLACES ±0.10					
TEL	+44 (0)121 414 4218	3 DECIMAL PLACES ±0.02		DESCRIPTION			
E-MAIL	ubracing@gmail.com	GENERAL CONCENTRICITY 0.1 TYP		SURFACE FINISH			
		ANGULAR TOLERANCE ±0.25°		POLISH			
		REMOVE BURRS AND SHARP EDGES		SCALE		1:1	
		This drawing and the copyright herein are the property of UBRacing. It is hereby acknowledged and agreed that it is not to be reproduced, copied or communicated in any other way without the written consent of UBRacing.		SHEET NUMBER		1/1	
				PART NUMBER		UBR28_AE_N 7412_200t	

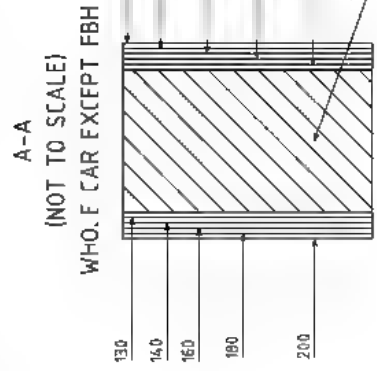
D

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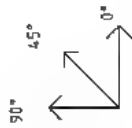
6.6.2



2090



NOTES:
SEE FBH DRAWING FOR FBH LAYOUT



LAMINATE TABLE		
OP NO.	MATERIAL SPECIFICATION	POSITION
10	CHECK ALL TOOLING IS CORRECT & REFUSED	
20	EPG300-C280T-HS-3K-42-1250 0.90	1 PLY, ALL OVER
30	DEBLK FOR 60 MINUTES	
40	EPG300 C280T HS 3K 42 1250 45	1 PLY, ALL OVER
50	DEBLK FOR 60 MINUTES	
60	EPG300-C280T-HS-3K-42-1250 0.90	1 PLY, ALL OVER
70	DEBLK FOR 60 MINUTES	
80	EPG300 C280T HS 3K 42 1250 45	1 PLY, ALL OVER
90	DEBLK FOR 60 MINUTES	
100	FILM BOND ADHESIVE	1 PLY, ALL OVER
110	20MM ALUMINIUM HONEYCOMB CORE	
120	FIT INSERTS AND LOCATE USING RESIN PINS	
130	FILM BOND ADHESIVE	1 PLY ALL, OVER
140	EPG300-C280T-HS-3K-42-1250 45	1 PLY, ALL OVER
150	DEBLK FOR 60 MINUTES	
160	EPG300 C280T HS 3K 42 1250 0.90	1 PLY, ALL OVER
170	DEBLK FOR 60 MINUTES	
180	EPG300-C280T-HS-3K-42-1250 45	1 PLY, ALL OVER
190	DEBLK FOR 60 MINUTES	
200	EPG300 C280T HS 3K 42 1250 0.90	1 PLY, ALL OVER
210	PEEL PLY	
CURE VACUUM BAG AND CURE: RAMP UP TO 100C AND 1.6 BAR, HOLD FOR 240 MINS, RAMP DOWN		

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT ASK	ASK	DIMENSIONS IN MILLIMETRES J D S	0 DECIMAL PLACES ±0.50	MASS (kg)	DRAWN BY	REVISION	SEE LAMINATE TABLE
A2	DO NOT SCALE	1 DECIMAL PLACES ±0.25	2 DECIMAL PLACES ±0.10			SURFACE TREATMENT	N A
TEL	+44 (0)12 414 4218	3 DECIMAL PLACES ±0.02	GENERAL CONCENTRICITY ±0.02			DESCRIPTION	MONOCOQUE
E MAIL	ubracings@gmail.com	ANGULAR TOLERANCE ±0.25°					
This drawing and the copyright herein is the property of UBRacing and is issued on the express condition that it is not to be reproduced or communicated to any other party without the written consent of UBRacing		SCALE		1:10		SHEET	
						PART NUMBER	
						JBR28 CH N_001 01A	

100 MM CENTRE LINE BEND RAD
TYP 3

129°

582

336

356

NOTES:

- 1 PART SYMMETRICAL ABOUT A
- 2 TUBE LENGTH 2215 MM
- 3 1"O/D 12 SWG SEAMLESS TUBE

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL ubrac@btinternet.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES U.O.S	
0 DECIMAL PLACES	+0.50
1 DECIMAL PLACES	+0.25
2 DECIMAL PLACES	+0.10
3 DECIMAL PLACES	+0.05
GENERAL CONCENTRICITY	0.1 TIR
ANGULAR TOLERANCE	+0.25°

REMOVE BUBBLES AND SHARP EDGES
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COMPONENT MASS, KG	3.42
DRAWN BY	WJS

MATERIAL SPEC	T45 MILD STEEL
PREP TREATMENT	N/A
FINISH TREATMENT	POWDER COATED
DESCR, P, / ON	MAIN ROLL HOOP

SCALE	1:5
SHEET	1/1

PART NUMBER	UBR028 CH N 011 01A
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REV	DESCRIPTION	DATE
D A	INITIAL RELEASE	08 02 2005

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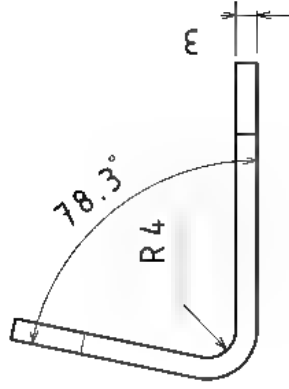
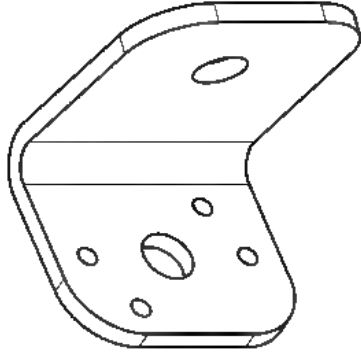
REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	KC	17/12/24

4

3

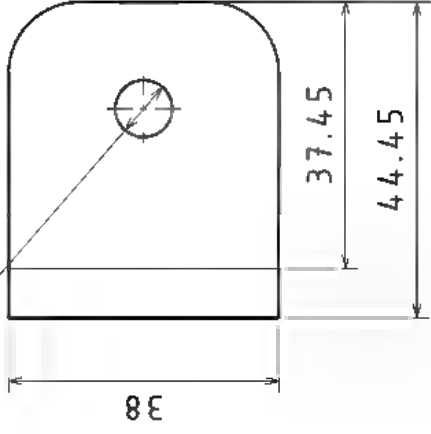
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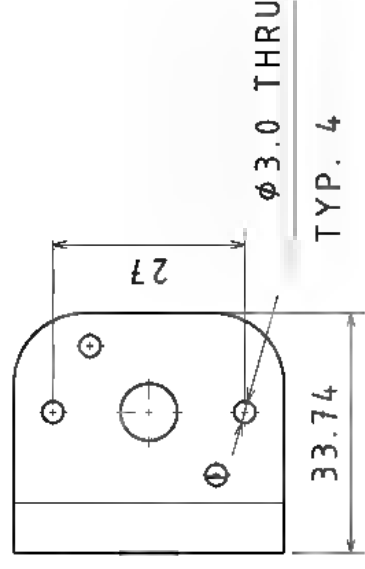
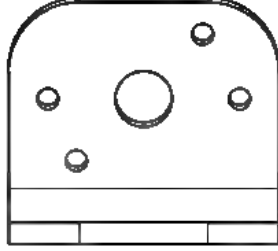


Ø 8.0 THRU

TYP. 2



OUTER SIDE VIEW



TYP. 4

UBRacing

IF IN DOUBT	ASK
A4	DO NOT SCALE
TEL	+44 (0)121 414 4218
E-MAIL	ubracings@gmail.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES ± 0.8	
0 DECIMAL PLACES	± 0.50
1 DECIMAL PLACES	± 0.25
2 DECIMAL PLACES	± 0.10
3 DECIMAL PLACES	± 0.02
GENERAL CONCENTRICITY	0 - 1 TIR
ANGULAR TOLERANCE	$\pm 0.25^\circ$

COMPONENT NAME (S)	DRAWN BY
	KC

MATERIAL SPEC.	ALUMINIUM
HEAT TREATMENT	N/A
SURFACE FINISH	ANODISED
DESCRIPTION	NOSECONE DZJS FASTENER BRACKET

SHEET NUMBER	1/1
PART NUMBER	UBR28 CH N 016 01A

SCALE	1:1
-------	-----

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D

A

H G F E D C B A

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	SN	8 2024

520

360

160

20 0

40

80

98

Ø 60 THRU

TYP 4

100

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL ubracing@gmail.com

Remove edges and sharp edges
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MATERIAL CERTIFICATE REQUIRED
DIMENSIONS IN MILLIMETRES u o s

0 DECIMAL PLACES ±0.50

1 DECIMAL PLACES ±0.25

2 DECIMAL PLACES ±0.10

3 DECIMAL PLACES ±0.05

GENERAL CONCENTRICITY 0 ±0.10

ANGULAR TOLERANCE ±0.25°

MATERIAL ALUMINIUM

RECYCLED N/A

FINISH N/A

TREATMENT N/A

DESCR. P. / ON

DASH INSERT

COMPONENT N/A

MASS .Kg

DRAWN BY

SK

SCALE 1:1

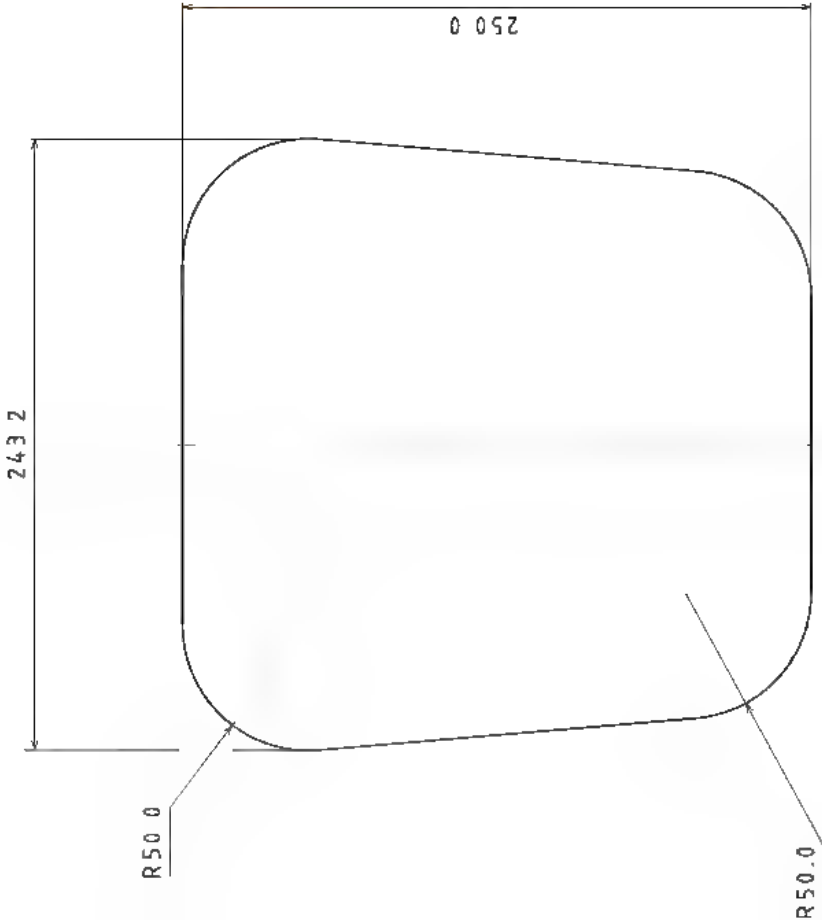
SHEET 1/1

PART NUMBER

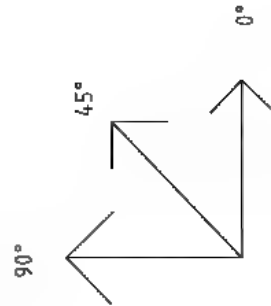
JBR28 CH_N_528_01A

H G F E D C B A

REV	DESCRIPTION	INT	DATE
D A	INITIAL RELEASE	DN	22 2024

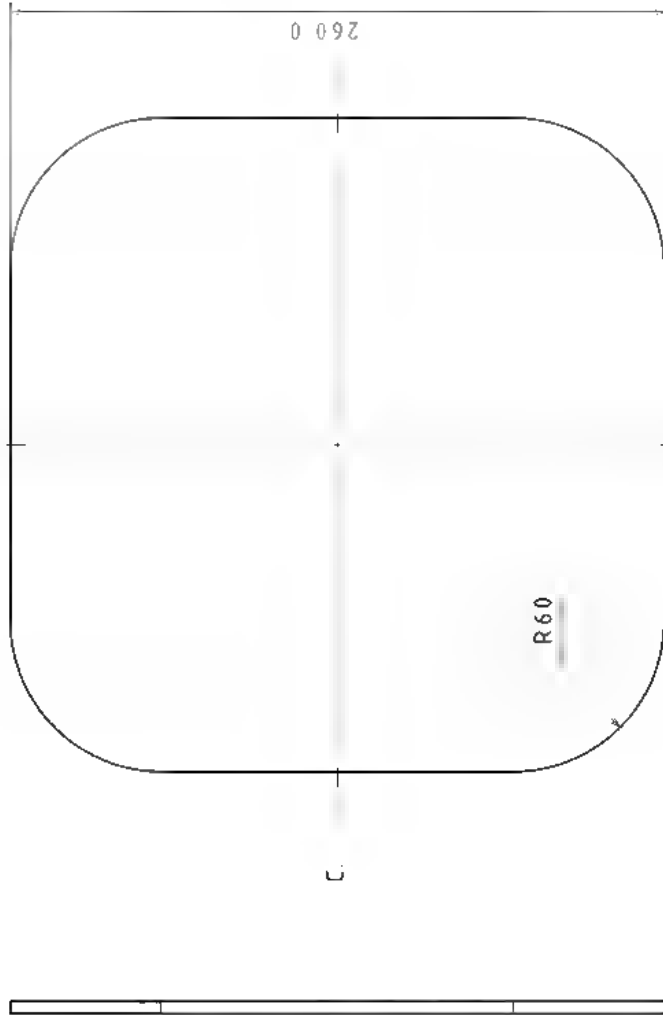
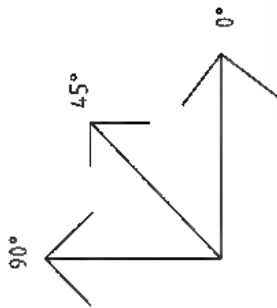


NOTES
SYMMETRICAL ABOUT CENTRE LINE




LAMINATE TABLE			
OP NO	MATERIAL SPECIFICATION	ORIENTATION	POSITION
10	CHECK ALL TOOLING IS CORRECT & RELEASED		
20	EPC300 C280T HS 3K-42 1250	0/90	2 PLY, ALL OVER
30	FILM BOND ADHESIVE	-	1 PLY, ALL OVER
40	3 MM PLYWOOD CORE	-	-
50	FILM BOND ADHESIVE	-	1 PLY, ALL OVER
60	EPC300 C280T HS 3K-42 1250	0/90	1 PLY, ALL OVER
70	PEEL PLY	-	-
CURE	VACUUM BAG AND CURE RAMP UP TO 80°C HOLD FOR 30MINS RAMP UP TO 120°C HOLD PER 120MINS, RAMP DOWN		

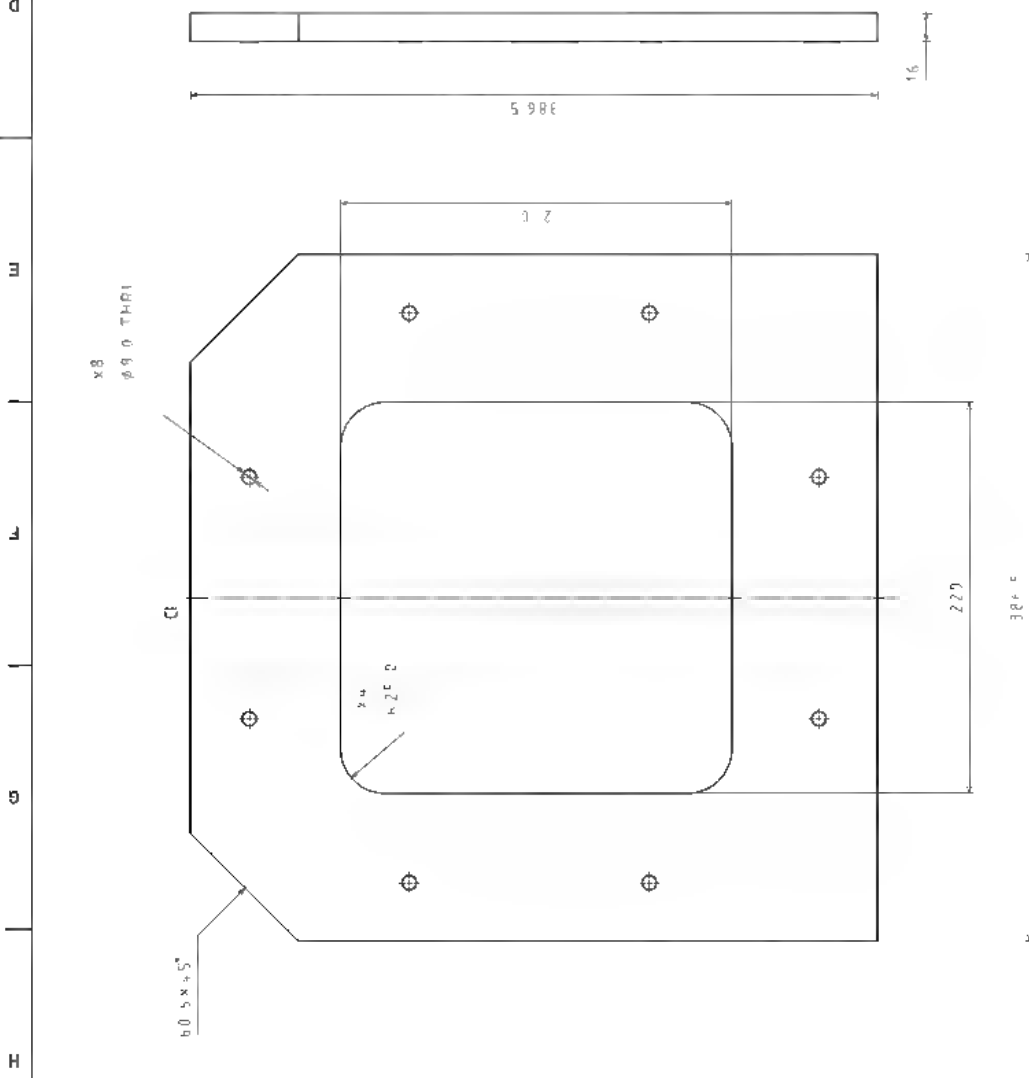
UBRacing		MATERIAL CERTIFICATE REQUIRED		N/A		SEE LAMINATE TABLE	
A3	IF IN DOUBT - ASK	DIMENSIONS IN MILLIMETRES ± 0.5		COMPONENT MASS: kg		MATERIAL SPEC	
	DO NOT SCALE	0 DECIMAL PLACES ±0.80 1 DECIMAL PLACES ±0.25 2 DECIMAL PLACES ±0.10 3 DECIMAL PLACES ±0.02 GENERAL CONCENTRICITY 0.1 TIR ANGULAR TOLERANCE ±0.25°		DRAWN BY		PREP METHOD SURFACE TREATMENT PAINT	
	TEL +44 (0)121 414 4218	REMOVE BURRS AND SHARP EDGES		DH		DESCRIPTION	
	E MAIL ubracing@qemu.ltd	This drawing and the copyright herein are the property of UBRacing. It is not to be used, copied, or communicated to any other party without the written consent of UBRacing.		SCALE 1:2		FRONT ACCESS PANEL	
						SHEET 1/1	
						JB028 OH N 706 D A	



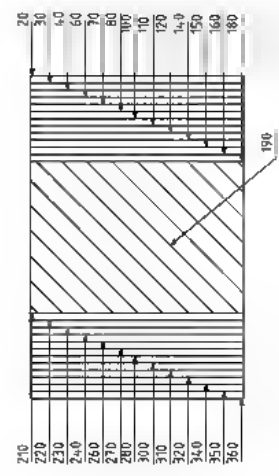
LAMINATE TABLE			
OP NO	MATERIAL SPECIFICATION	ORIENTATION	POSTION
1	CHECK ALL TOOLING IS CORRECT AND RELEASED		
2	EPC300-C280T-HS-3K-42-1250	45	2 PLY ALL OVER
3	FILM BOND ADHESIVE	-	1 PLY ALL OVER
4	3 MM PLYWOOD CORE	-	-
5	FILM BOND ADHESIVE	-	1 PLY ALL OVER
6	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
7	PEEL PLY	-	-
CURE	VACUUM BAG AND CURE, RAMP JP TO 80C, H.O.D FOR 30MINS, RAMP UP TO 120C HOLD FOR 120MINS, RAMP DOWN		

NOTES
SYMMETRICAL ABOUT CENTRE LINE

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT*	N/A	MATERIAL SPEC	SEE LAMINATE TABLE	
A3	IF IN DOUBT - ASK	DIMENSIONS IN MILLIMETRES ± 0.5				REAR TREATMENT	N/A	
	DO NOT SCALE	0 DECIMAL PLACES	±0.50	DRAWN BY	SB	SURFACE TREATMENT	PAINT	
		1 DECIMAL PLACE	±0.25					
		2 DECIMAL PLACES	±0.0					
		3 DECIMAL PLACES	±0.02					
TEL: +44 (0)121 414 4218	GENERAL CONCENTRICITY 0.1 TIR				DESIGN P, / ON			
E MAIL: ubracing@gmail.com	ANGULAR TOLERANCE ±0.25°				REAR ACCESS PANEL			
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NOTES
PART SYMMETRICAL ABOUT CENTRE LINE



UBRacing

IF IN DOUBT ASK
A2
DO NOT SCALE
TEL: +44 (0)12 414 4218
E MAIL: ubracing@gmail.com

MATERIAL CERTIFICATE REQUIRED
DIMENSIONS IN MILLIMETRES ± 0.8
0 DECIMAL PLACES ±0.50
1 DECIMAL PLACE ±0.25
2 DECIMAL PLACES ±0.10
3 DECIMAL PLACES ±0.02
GENERAL CONCENTRICITY 0 TIR
ANGULAR TOLERANCE ±0.25°

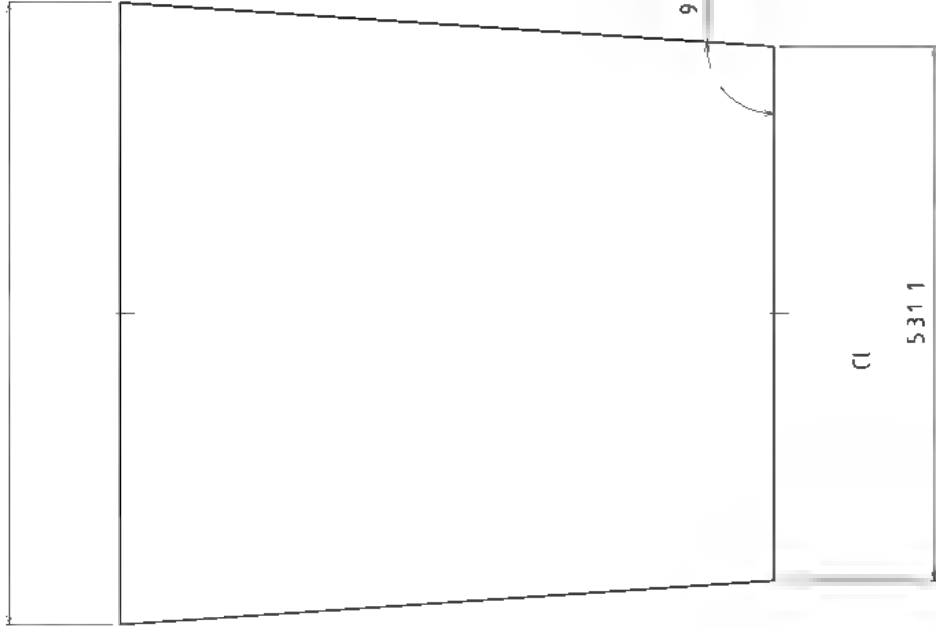
SK
SCALE 1:1

N/A
DRAWN BY
SURFACE TREATMENT N/A
DESCRIPTION
FRONT BULKHEAD

SHEET 1/1
PART NUMBER
UBR328 CH N_FEM 01A

REV	DESCRIPTION	DATE	BY
001	INITIAL RELEASE	2024	SK
OP NO	MATERIAL SPECIFICATION	ORIENTATION	POSITION
10	CHECK ALL TOOLING S CORRECT AND RELEASED		
20	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
30	EPC300 C280T HS 3K 42 1250	0/90	1 PLY ALL OVER
40	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
50	DEBULK FOR 60 MINS		
60	EPC300 C280T HS 3K 42 1250	90	1 PLY ALL OVER
70	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
80	MTES10 UD300 HS 33%RW 300P	0	1 PLY ALL OVER
90	DEBULK FOR 60 MINS		
100	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
110	MTES10 UD300 HS 33%RW 300P	90	1 PLY ALL OVER
120	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
130	DEBULK FOR 60 MINS		
140	EPC300 C280T HS 3K 42 1250	90	1 PLY ALL OVER
150	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
160	EPC300 C280T HS 3K 42 1250	90	1 PLY ALL OVER
170	DEBULK FOR 60 MINS		
180	FILM BOND ADHESIVE	-	1 PLY ALL OVER
190	10MM ALUMINIUM HONEYCOMB CORE	-	A.L. OVER
200	FT INSERTS AND LOCATE USING RESIN PINS		
210	FILM BOND ADHESIVE	-	1 PLY ALL OVER
220	EPC300 C280T HS 3K 42 1250	90	1 PLY ALL OVER
230	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
240	EPC300 C280T HS 3K 42 1250	90	1 PLY ALL OVER
250	DEBULK FOR 60 MINS		
260	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
270	MTES10 UD300 HS 33%RW 300P	90	1 PLY ALL OVER
280	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
290	DEBULK FOR 60 MINS		
300	MTES10 UD300 HS 33%RW 300P	0	1 PLY ALL OVER
310	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
320	EPC300 C280T HS 3K 42 1250	0/90	1 PLY ALL OVER
330	DEBULK FOR 60 MINS		
340	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
350	EPC300 C280T HS 3K 42 1250	0/90	1 PLY ALL OVER
360	EPC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
370	PEEL PLY	-	-
CURE	VACUUM BAG AND CURE RAMP UP TO 100C AND 16 BAR, HOLD FOR 240 MINS RAMP DOWN		

618 5



1050.1

5.5

93.85°

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531.1

NOTES:
PART SYMMETRICAL ABOUT CENTRE LINE

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL ubracing@gmail.com

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MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES TO 0.5

0 DECIMAL PLACES ±0.50
1 DECIMAL PLACES ±0.25
2 DECIMAL PLACES ±0.10
3 DECIMAL PLACES ±0.05
GENERAL CONCENTRICITY 0.1
ANGULAR TOLERANCE ±0.25°

REMOVE BUBBLES AND SHAPE EDGES

COMPONENT MASS (kg)

N/A

DRAWN BY

PEF

MATERIAL SPEC

N/A

REACTANT SURFACE TREATMENT

N/A

SEE LAMINATE TABLE

N/A

DESCRIPTION

FIREWALL

SHEET

1/1

PART NUMBER

UBR88-01-01-0001-01A

REV

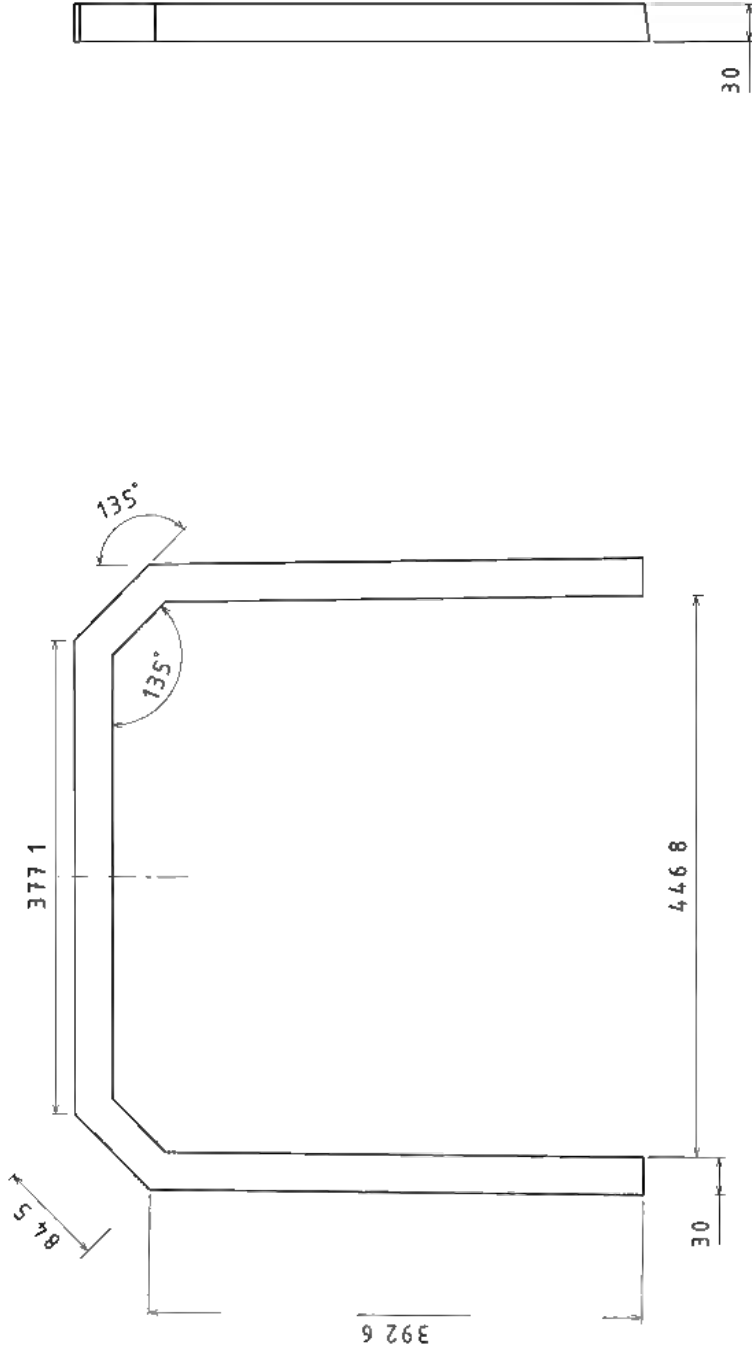
DESCRIPTION

DATE

0.1 INITIAL RELEASE

PEF 22 2024

LAMINATE TABLE			
OP NO	MATERIAL SPECIFICATION	ORIENTATION	POSITION
10	CHECK ALL TOOLING IS CORRECT & RELEASED		
20	EPC312FR-C205T-HS-3K-45-1250	0/90	1 PLY, ALL OVER
30	EPC312FR-C205T-HS-3K-45-1250	45	1 PLY, ALL OVER
40	EPC312FR-C205T-HS-3K-45-1250	0/90	1 PLY, ALL OVER
50	FILM BOND ADHESIVE	-	1 PLY, ALL OVER
60	5 MM NOME X HONEYCOMB	-	-
70	FILM BOND ADHESIVE	-	-
80	EPC312FR-C205T-HS-3K-45-1250	0/90	1 PLY, ALL OVER
90	EPC312FR-C205T-HS-3K-45-1250	45	1 PLY, ALL OVER
100	EPC312FR-C205T-HS-3K-45-1250	0/90	1 PLY, ALL OVER
CURE	VACUUM BAG AND CURE RAMP UP TO 80C, HOLD FOR 30 MINS, RAMP UP TO 120C, HOLD FOR 60 MINS, RAMP DOWN	-	-
110	BOND 0.9 MM ALUMINIUM SHEET TO BACK OF KEVLAR USING MT3838		
120	ADD D-RING ON THE EDGES		

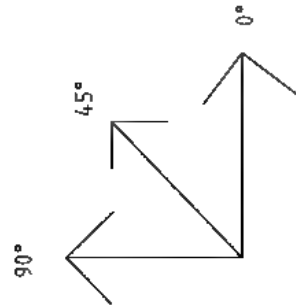
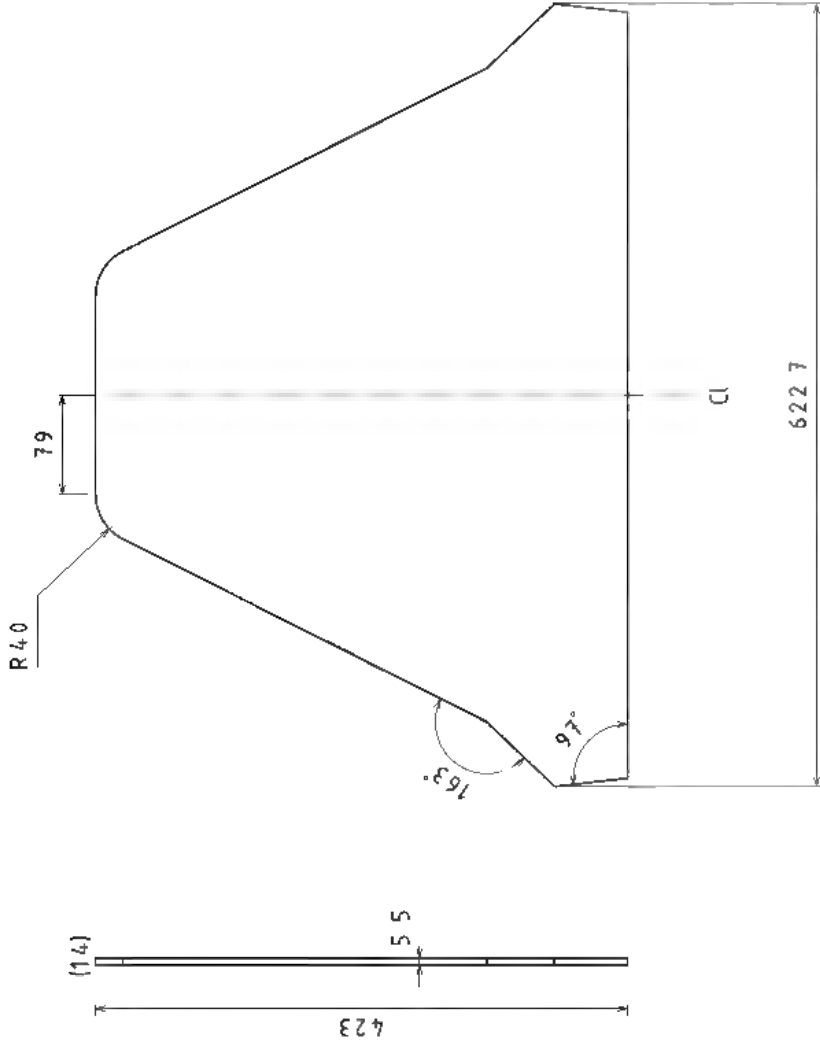


REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	KC	4 2 2024

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES U O S		MASS .Kg		SPEC	
A3		0 DECIMAL PLACES ±0.50		DRAWN BY		T6	
		1 DECIMAL PLACES ±0.25		CHECKED BY		T6	
		2 DECIMAL PLACES ±0.10		TREATMENT		N A	
		3 DECIMAL PLACES ±0.05		DESCR. P. 10N			
		GENERAL CONCENTRICITY 0 ± 0.15		SCALE		1:4	
		ANGULAR TOLERANCE ±0.25°		SHEET		1/1	
TEL +44 (0)121 414 4218		REMOVE BURS AND SQUARE EDGES		PART		NUMBER	
E MAIL ubracing@gmail.com		This drawing and the copyright herein are the property of UBRacing. It is not to be used for any other purpose without the written consent of UBRacing.		UBR28 FRONT ROLL HOOP		JB028 OH N FBH 0 A	

H G L F C D A

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	SCB	23 2024

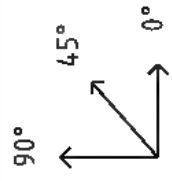
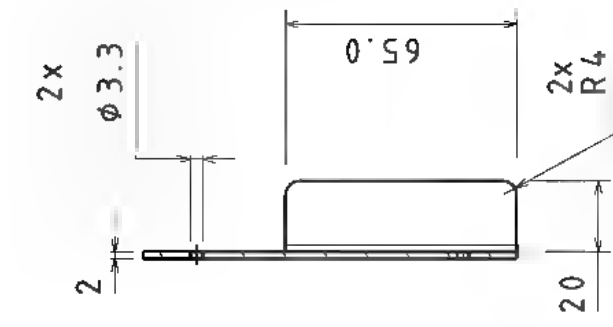
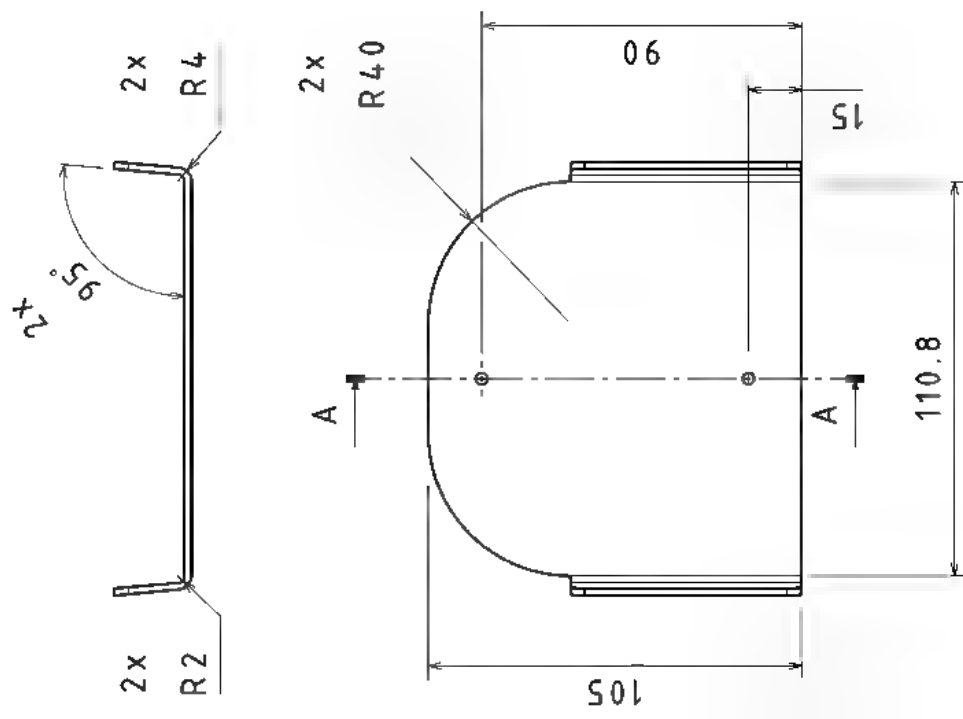


NOTES
SYMMETRICAL ABOUT CENTRELINE (C.)

LAMINATE TABLE			
OP NO	MATERIAL SPECIFICATION	ORIENTATION	POST ON
10	CHECK ALL TOOLING IS CORRECT AND RELEASED		
20	EPC312FR C205T HS 3K 45 1250	45	1 PLY ALL OVER
30	EPC312FR C205T HS 3K 45 1250	0/90	1 PLY ALL OVER
40	EPC312FR C205T HS 3K 45 1250	45	1 PLY ALL OVER
50	FILM BOND ADHESIVE	-	1 PLY ALL OVER
60	5 MM NOMEX HONEYCOMB	-	-
70	FIT NSERTS AND LOCATE USING RESIN PINS		
80	FILM BOND ADHESIVE	-	1 PLY ALL OVER
90	EPC312FR-C205T-HS-3K-45-1250	45	1 PLY ALL OVER
100	EPC312FR-C205T-HS-3K-45-1250	90	1 PLY ALL OVER
110	EPC312FR-C205T-HS-3K-45-1250	45	1 PLY ALL OVER
120	PEEL PLY	-	-
CJRE	VACCUM BAG AND CURE, RAMP UP TO 80C, HOLD FOR 30MINS, RAMP UP TO 120C HOLD FOR 120MINS, RAMP DOWN		
130	BOND 0.9 MM ALUMINIUM SHEET TO BACK OF KEVLAR USING MT3836		
140	ADD D-RING ON THE EDGES		

UBRacing		MATERIAL CERTIFICATE REQUIRED		SEE LAMINATE TABLE	
A3	IF IN DOUBT - ASK	DIMENSIONS IN MILLIMETRES ± 0.5		N/A	
	DO NOT SCALE	0 DECIMAL PLACES ±0.50 1 DECIMAL PLACES ±0.25 2 DECIMAL PLACES ±0.10 3 DECIMAL PLACES ±0.05 GENERAL CONCENTRICITY 0.1 ANGULAR TOLERANCE ±0.20		DRAWN BY SB	
TEL +44 (0)121 414 4218		REMOVE BUBBLES AND SHARP EDGES		DESCRIPTION HEADREST	
E MAIL ubracing@gmail.com		This drawing and the copyright herein are the property of UBRacing. It is private & confidential and is issued on the express condition that it is not reproduced, copied or communicated to any other party without the written consent of UBRacing.		SCALE 1:2	
				SHEET 1/1	
				PART NUMBER UBR28 CH IN HEADREST 01A	

H G L F C D A



SECTION A-A

UBRacing		MATERIAL CERTIFICATE REQUIRED				COMPONENT		N A		MATERIAL SPEC		SEE LAMINATE TABLE		
A4	IF IN DOUBT ASK	DIMENSIONS IN MILLIMETRES ± 0.8				DRAWN BY		N A		MEAN PREPARE		N A		
	DO NOT SCALE	0 DECIMAL PLACES ± 0.50				LPT		SURFACE FINISH		TOE CAP				
	TEL +44 (0)121 414 4218	1 DECIMAL PLACES ± 0.25												
E-MAIL ubracing@gmail.com	2 DECIMAL PLACES ± 0.10													
		GENERAL CONCENTRICITY 0.1 TIR												
		ANGULAR TOLERANCE ± 0.25°												
		REMOVE BURRS AND SHARP EDGES												
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		Scale 1:1												
		SHEET PART NUMBER 1/1												
		UBR28 PB N												
		001 01A												

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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	LPT	12/06/25

LAMINATE TABLE

OP NO	MATERIAL SPECIFICATION	ORIENTATION	POSITION
CHECK ALL TOOLING S CORRECT AND RELEASED			
10	EPIC300 C280T HS 3K 42 1250	0/90	1 PLY ALL OVER
20	EPIC300-C280T-HS-3K-42-1250	45	1 PLY ALL OVER
30	EPIC300 C280T HS 3K 42 1250	0/90	1 PLY ALL OVER
40	EPIC300-C280T-HS-3K-42-1250	0/90	1 PLY ALL OVER
50	EPIC300 C280T HS 3K 42 1250	45	1 PLY ALL OVER
60	EPIC300-C280T-HS-3K-42-1250	0/90	1 PLY ALL OVER
70	PEEL PLY	-	-
VACUUM BAG AND CURE, RAMP UP TO 80C HOLD FOR 30 MINS, RAMP UP TO 120C HOLD FOR 120 MINS RAMP DOWN			

2x

R10

95°

2x

R10

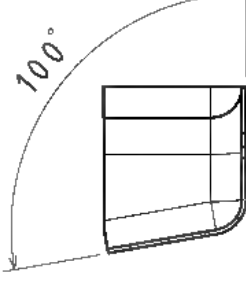
267

A

16.4

2x

91.4



90°

45°

0°

SECTION A-A

UBRacing

IF IN DOUBT ASK

A4 DO NOT SCALE

TEL +44 (0)121 414 4218

E-MAIL ubracing@gmail.com

MATERIAL CERTIFICATE REQUIRED	DIMENSIONS IN MILLIMETRES L D S
0 DECIMAL PLACES	±0.50
1 DECIMAL PLACES	±0.25
2 DECIMAL PLACES	±0.10
3 DECIMAL PLACES	±0.02
GENERAL CONCENTRICITY	0.1 TIR
ANGULAR TOLERANCE	±0.25

REMOVE BURRS AND SHARP EDGES
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MATERIAL	SEE LAMINATE TABLE
REST	N/A
SURFACE	N/A
DESCRIPTION	HEEL REST

COMPONENT	N/A
DRAWN BY	LPT

SCALE	1:2
-------	-----

SHEET	1/1
PART	UBR28 PB N
NUMBER	002 01A

D

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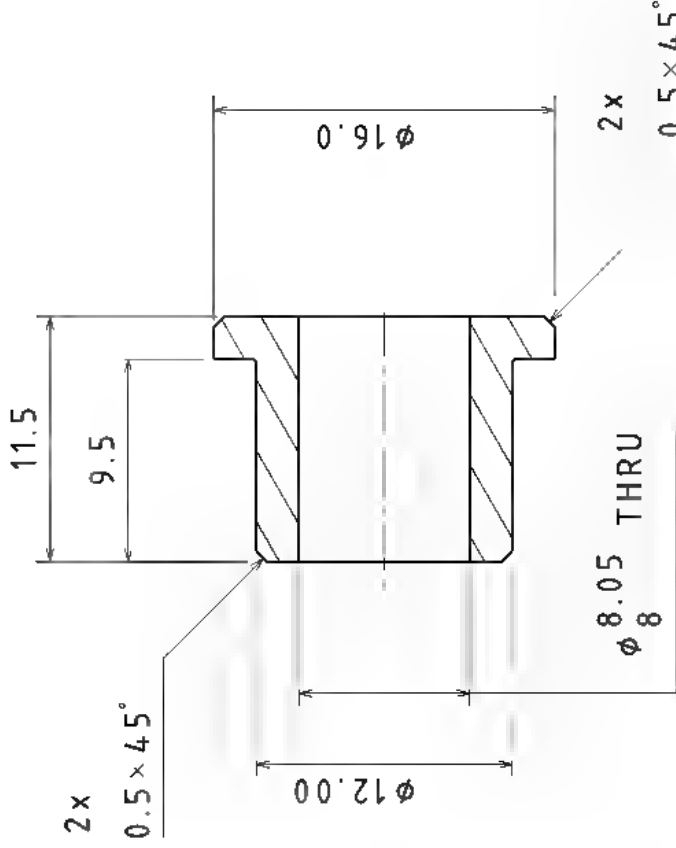
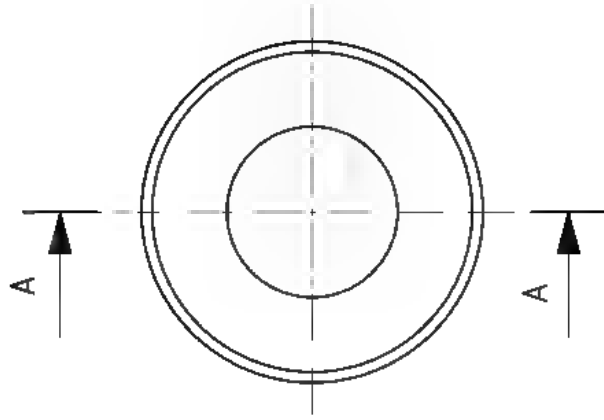
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	LPT	26/03/2025

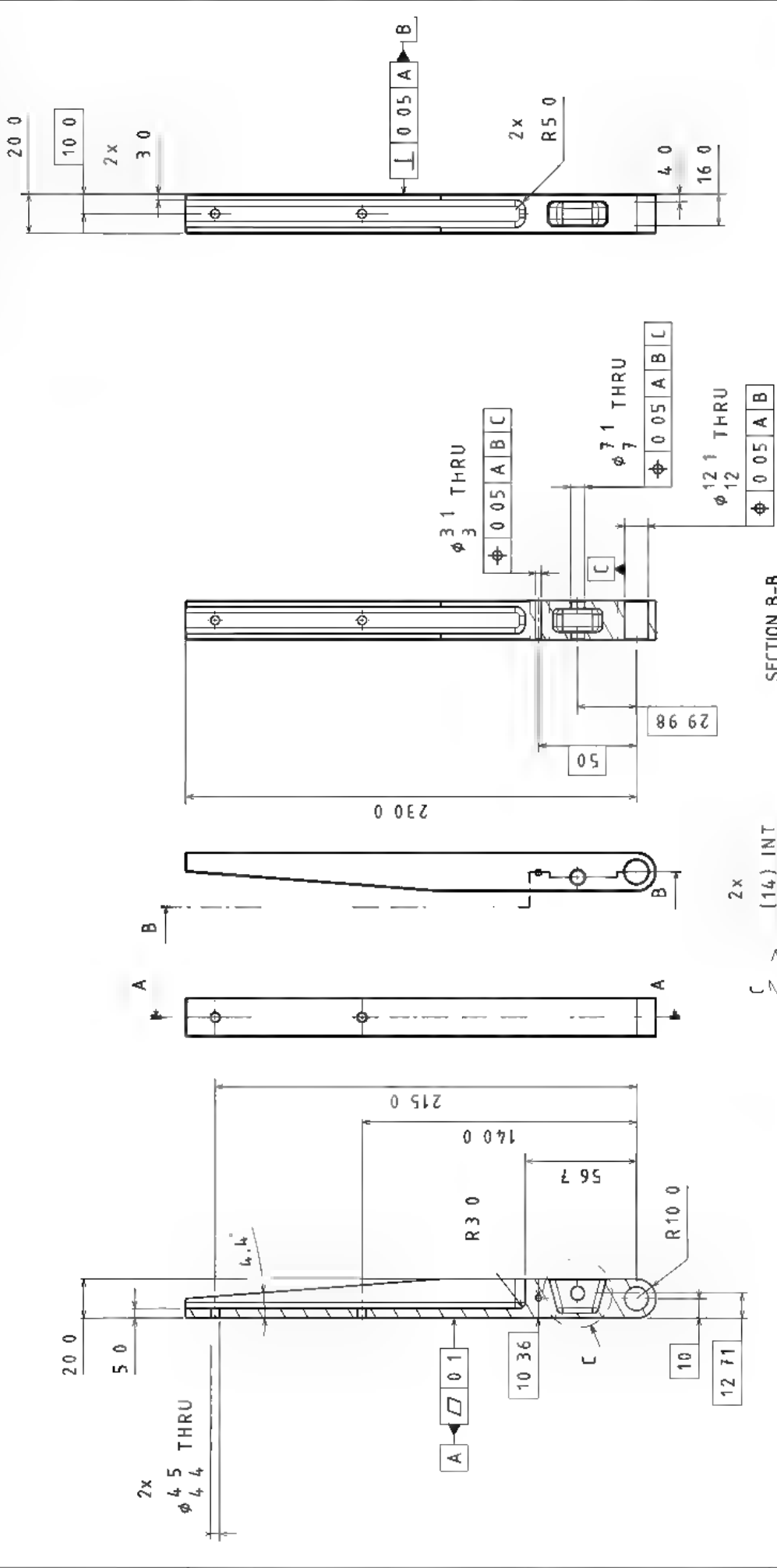


SECTION A-A

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT	MATERIAL		IG. IDER
A4	IF IN DOUBT ASK	DIMENSIONS IN MILLIMETRES U.O.S		WAS (REQ.)	WAS	TREATMENT	N A
	DO NOT SCALE	0 DECIMAL PLACES ±0.50		DRAWN BY	LPT	DESCRIPTION	N A
	TEL +44 (0)121 414 4218	1 DECIMAL PLACES ±0.25					
E-MAIL ubracing@gmail.com	2 DECIMAL PLACES ±0.10						
		3 DECIMAL PLACES ±0.02		SURFACE FINISH			
		GENERAL CONCENTRICITY 0.1 TIR		DRAWN BY		LPT	
		ANGULAR TOLERANCE ±0.25		DRAWN BY		LPT	
		REMOVE BURRS AND SHARP EDGES		DRAWN BY		LPT	
		This drawing and the copyright herein are the property of UBRacing. It is hereby acknowledged and is issued on the express condition that it is not reproduced, copied or communicated to any other party without the written consent of UBRacing.		DRAWN BY		LPT	
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H G F E D C B A

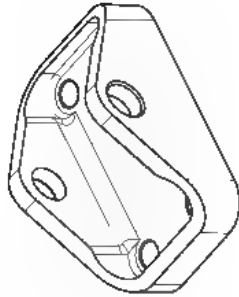
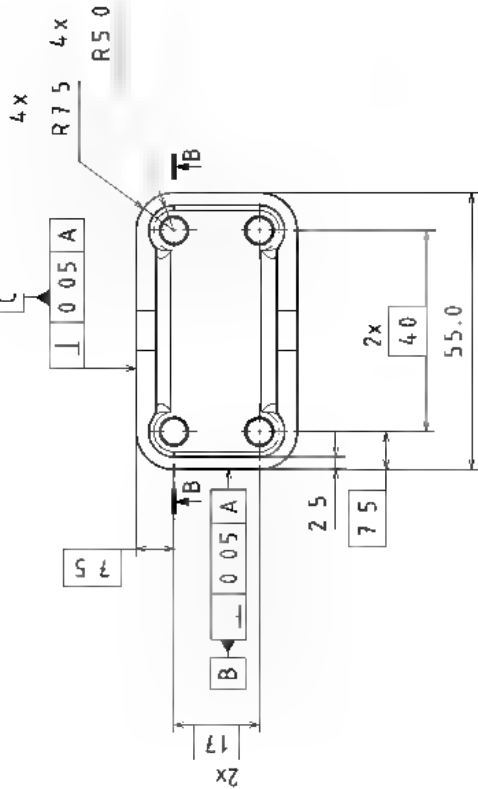
REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	LPT	8 02 2025
0 B	POCKET IN DETAIL VIEW C CHANGE IN DEPTH	LPT	08 04 2025



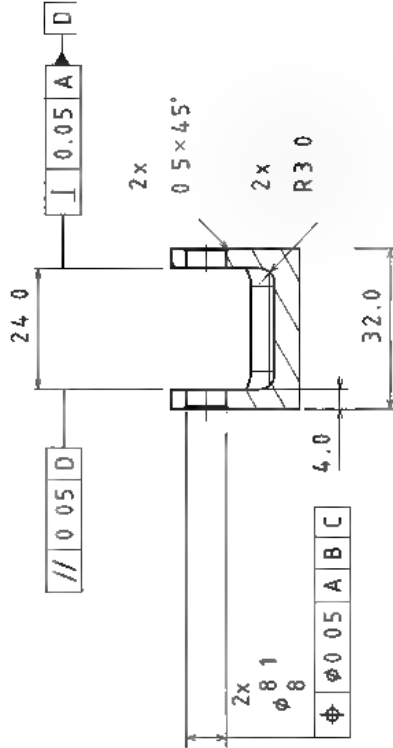
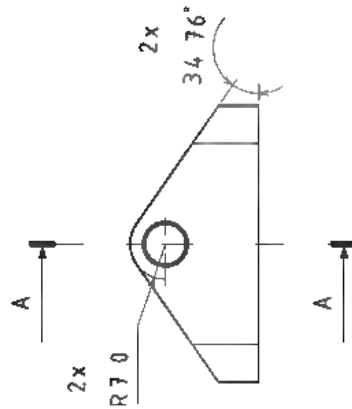
UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES L O S		DRAWN BY		ALUMINIUM 7075	
A3		DO NOT SCALE		LPT		0.136	
TEL +44 (0)121 414 4218		REMOVE BURRS AND SHARP EDGES		SCALE 1:2		PART NUMBER 02B	
E MAIL jbracing@gmail.com		This drawing and the copyright herein are the property of UBRacing. It is not to be used for any other purpose without the written consent of UBRacing.		SHEET 1/1		ACCELERATOR PEDAL ARM	

H G F E D C B A

REV	DESCRIPTION	NTT	DATE
0 A	INITIAL RELEASE	LPT	08 02 2025
0 B	DRAWING CHANGES	LPT	07 02 2025



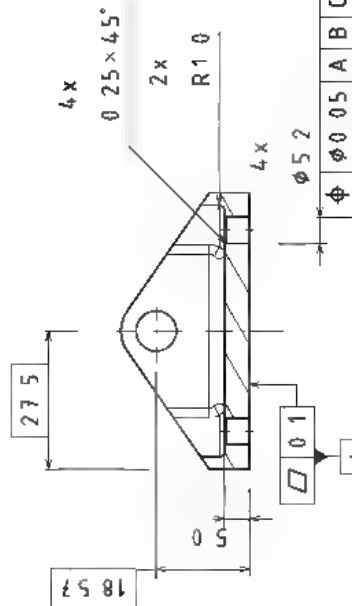
ISOMETRIC VIEW



SECTION A-A

NOTES

- 1) BREAK ALL SHARP EDGES
- 2) REFER TO CAD DATA FOR ANY UNDIMENSIONED FEATURES



SECTION B-B

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES TO 0.5		MASS - kg		SPEC.	
A3		0 DECIMAL PLACES		DRAWN BY		REVISION	
DO NOT SCALE		1 DECIMAL PLACES		LPT		TREATMENT	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES		DESIGNATION		N A	
E MAIL ubracing@me.i.com		3 DECIMAL PLACES		ACCELERATOR PEDAL ASSY		N A	
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REMOVE BURRS AND SHARP EDGES		ANGULAR TOLERANCE		SCALE		SHEET	
		0.1		1:1		1/1	
						PART NUMBER	
						UBR28_PB_103	

A

B

C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	LPT	19/02/2025
01B	DRAWING CHANGES	LPT	05/03/2025

4

3

2

1

4

3

2

1

22.0

20

19.5

2.0

Ø 28.0

Ø 20.0

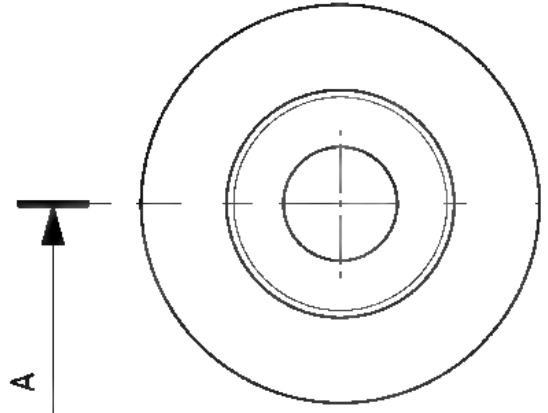
Ø 15.75

16

Ø 8.0 THRU

0.5 × 45°

SECTION A-A



UBRacing

IF IN DOUBT ASK

A4 DO NOT SCALE

TEL +44 (0)121 414 4218

E-MAIL ubracing@gmail.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES ± 0.8	
0 DECIMAL PLACES	± 0.50
1 DECIMAL PLACES	± 0.25
2 DECIMAL PLACES	± 0.10
3 DECIMAL PLACES	± 0.02
GENERAL CONCENTRICITY	0.1 TIR
ANGULAR TOLERANCE	± 0.25°
REMOVE BURRS AND SHARP EDGES	

COMPONENT NO. 50	N/A
DRAWN BY	LPT

MATERIAL SPEC.	A. ALUMINIUM
HEAT TREATMENT	N A
SURFACE FINISH	N A
DESCRIPTION	TOR SPRING END CAP

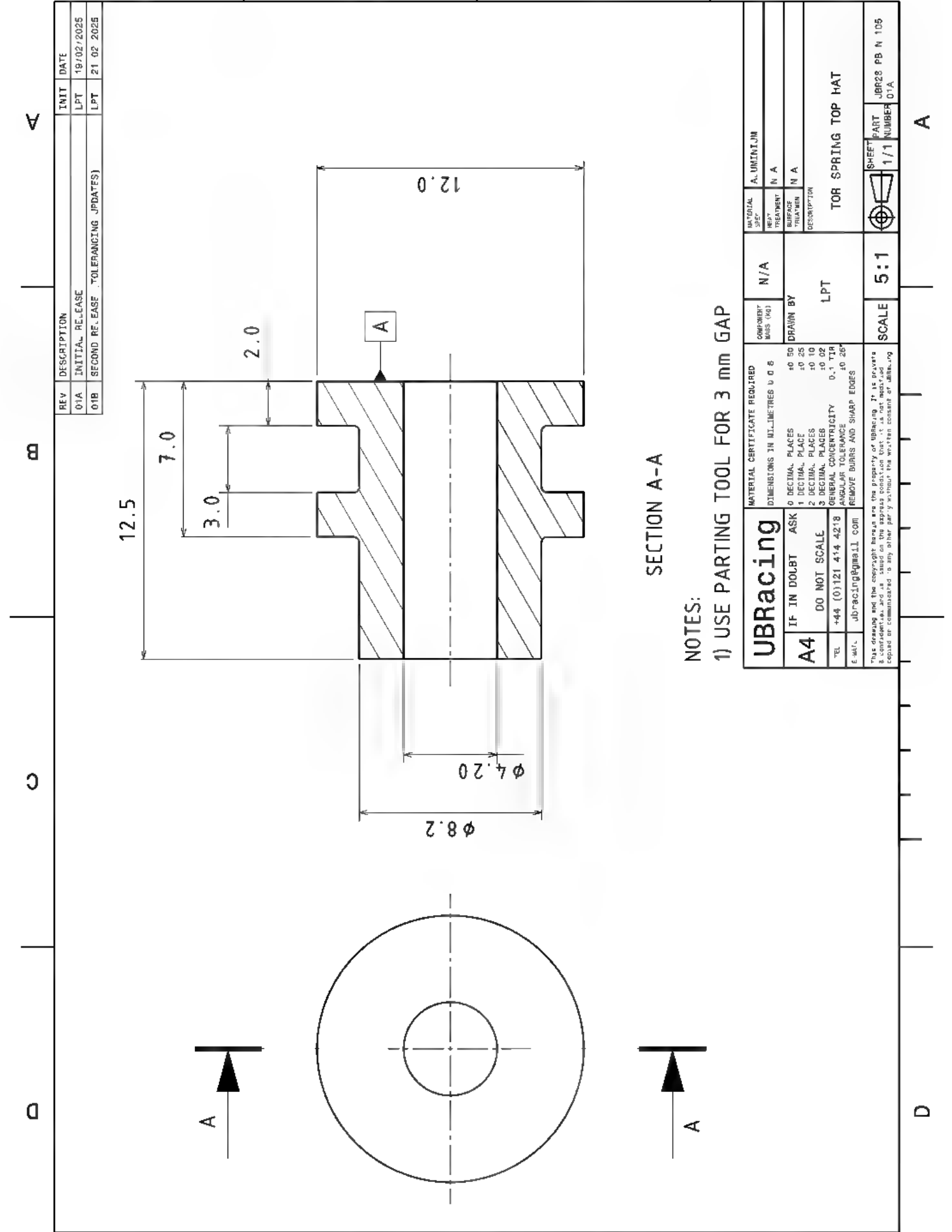
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SCALE	2:1
-------	-----


SHEET PART	UBR28 PB N 104
1/1 NUMBER	01A

A

D



NOTES:
1) USE PARTING TOOL FOR 3 mm GAP

UBRacing		MATERIAL CERTIFICATE REQUIRED DIMENSIONS IN MILLIMETRES 0.05		COMPANY MOSS 160	N/A	MATERIAL SPEC. N/A	ALUMINIUM
IF IN DOUBT	ASK	0 DECIMAL PLACES ±0.50	DRAWN BY	LPT			TOR SPRING TOP HAT
A4	DO NOT SCALE	1 DECIMAL PLACES ±0.25	DESCRIPTION				
TEL	+44 (0)121 414 4218	2 DECIMAL PLACES ±0.10	SURFACE TREATMENT				
E-MAIL	ubracing@gmail.com	3 DECIMAL PLACES ±0.02	SURFACE TREATMENT				
		ANGULAR TOLERANCE 0.1 TIR					
		REMOVE BURRS AND SHARP EDGES ±0.25					
		This drawing and the copyright herein are the property of UBRacing. It is drawn to the best of our knowledge and is issued on the express condition that it is not to be used for any other purpose without the written consent of UBRacing.		SCALE	5:1		SHEET 1/1
				SCALE	5:1	PART NUMBER JBR232 PB N 105 01A	

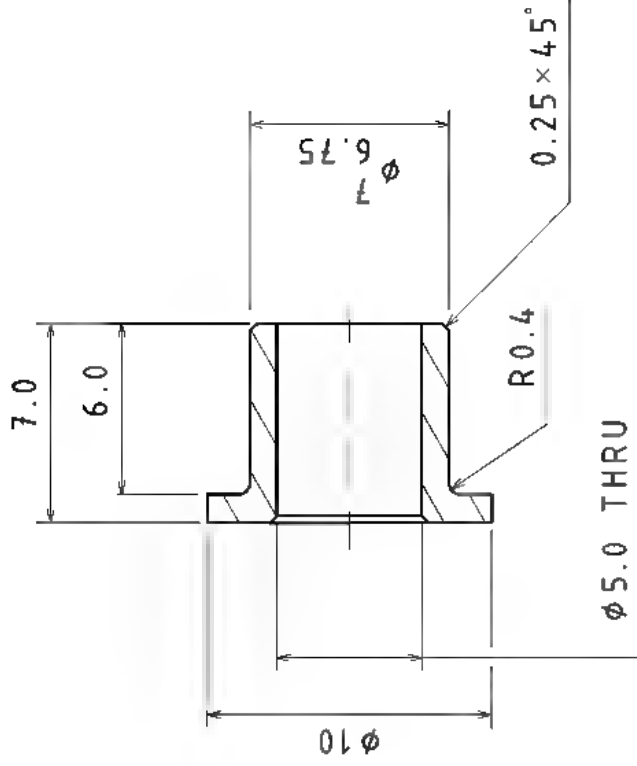
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	LPT	05/04/2025



SECTION A-A

UBRacing		MATERIAL CERTIFICATE REQUIRED			COMPONENT	SCALE	SHEET	PART	UBR28 PB N	
A4	IF IN DOUBT	ASK	DIMENSIONS IN MILLIMETRES U O S			DRAWN BY	N/A	N/A	1/1	
	DO NOT SCALE		0 DECIMAL PLACES	±0.50						
			1 DECIMAL PLACE	±0.25						
			2 DECIMAL PLACES	±0.10						
TEL	+44 (0)121 414 4218		3 DECIMAL PLACES	±0.02	LPT	TOP HAT PSRD ACCELERATOR PEDAL	N/A	N/A	NUMBER	106 01A
E-MAIL	ubracings@gmail.com		GENERAL CONCENTRICITY	0.1 TIR						
			ANGULAR TOLERANCE	±0.25						
			REMOVE BURRS AND SHARP EDGES							
<p>This drawing and the copyright herein are the property of UBRacing. It is hereby agreed that it is not to be reproduced, copied or communicated in any form without the written consent of UBRacing.</p>										

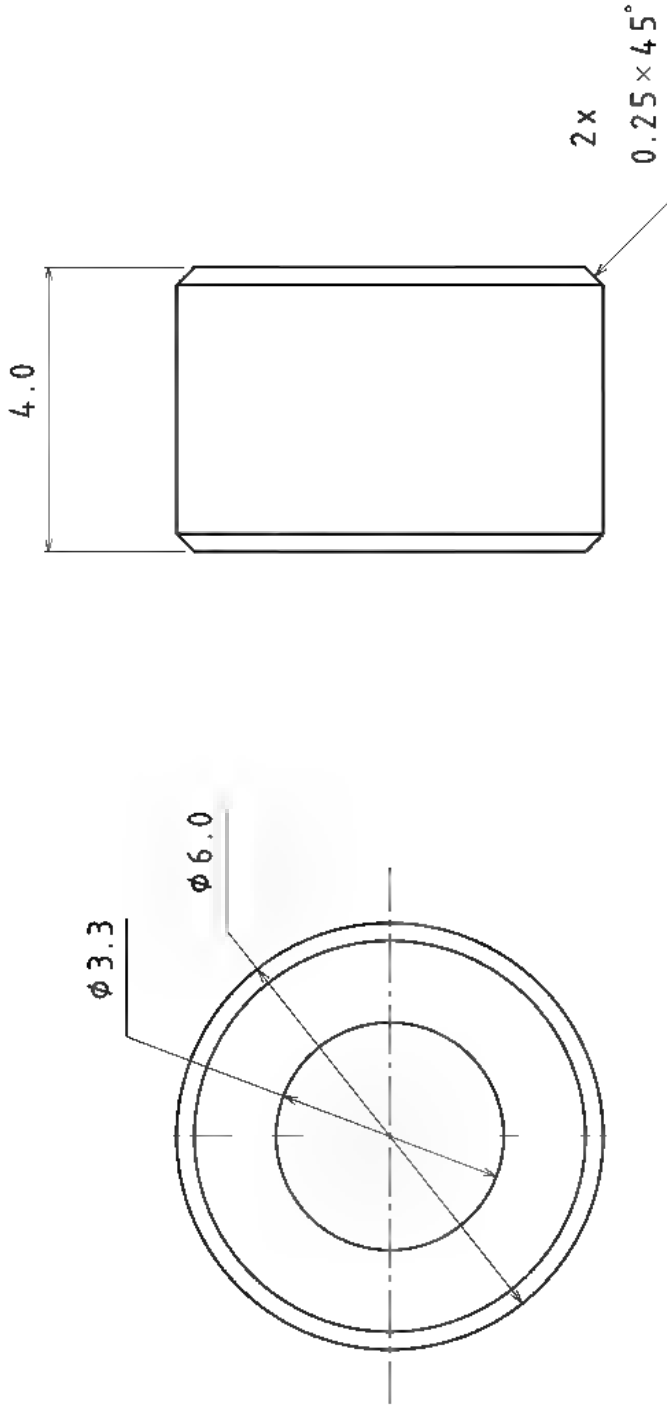
A

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D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	LPT	05/04/2025



UBRacing		MATERIAL CERTIFICATE REQUIRED			COMPONENT AND TOL		N/A		MATERIAL		A. UMINIUM	
A4	IF IN DOUBT	ASK	DIMENSIONS IN MILLIMETRES ± 0.5			N/A		N/A		N/A		
	DO NOT SCALE		0 DECIMAL PLACES ±0.50			DRAWN BY		N/A		N/A		
	TEL	+44 (0)121 414 4218	1 DECIMAL PLACES ±0.25			LPT		N/A		N/A		
	E-MAIL	ubracing@gmail.com	2 DECIMAL PLACES ±0.10			DESCRIPTION		N/A		N/A		
				3 DECIMAL PLACES ±0.02								
				GENERAL CONCENTRICITY 0.1 TIR								
				ANGULAR TOLERANCE ±0.25°								
				REMOVE BURS AND SHARP EDGES								
				This drawing and the copyright herein are the property of UBRacing. It is hereby acknowledged that it is not to be reproduced or communicated to any other party without the written consent of UBRacing.								
				SCALE		10:1		SHEET PART		UBR28 PB_N_		
								1/1		NUMBER 107 01A		

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D

A

B

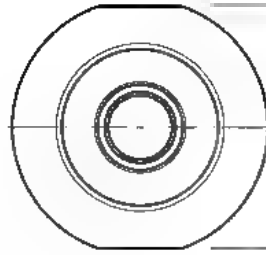
C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	LPT	19/05/2025



ISOMETRIC VIEW (1:1)



17.0

49.0

43.0

17.0

4.0

$\phi 5.8$

MACHINE $\phi 5.0$
M5 THREAD

4.5 MINFT

8.5 MINFT

10

DRILL $\phi 4.2$
TAP M5

$\phi 11.0$

$\phi 18.0$

SECTION A-A

NOTES:

1) MAKE FLAT EDGES WITH FILE

UBRacing

IF IN DOUBT	ASK
A4	DO NOT SCALE
TEL	+44 (0)121 414 4218
E-MAIL	ubracings@gmail.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES ± 0.8	
0 DECIMAL PLACES	± 0.50
1 DECIMAL PLACES	± 0.25
2 DECIMAL PLACES	± 0.10
3 DECIMAL PLACES	± 0.02
GENERAL CONCENTRICITY	0 - 1 TIR
ANGULAR TOLERANCE	$\pm 0.25^\circ$

COMPONENT NO. 0079	DRAWN BY LPT
--------------------	--------------

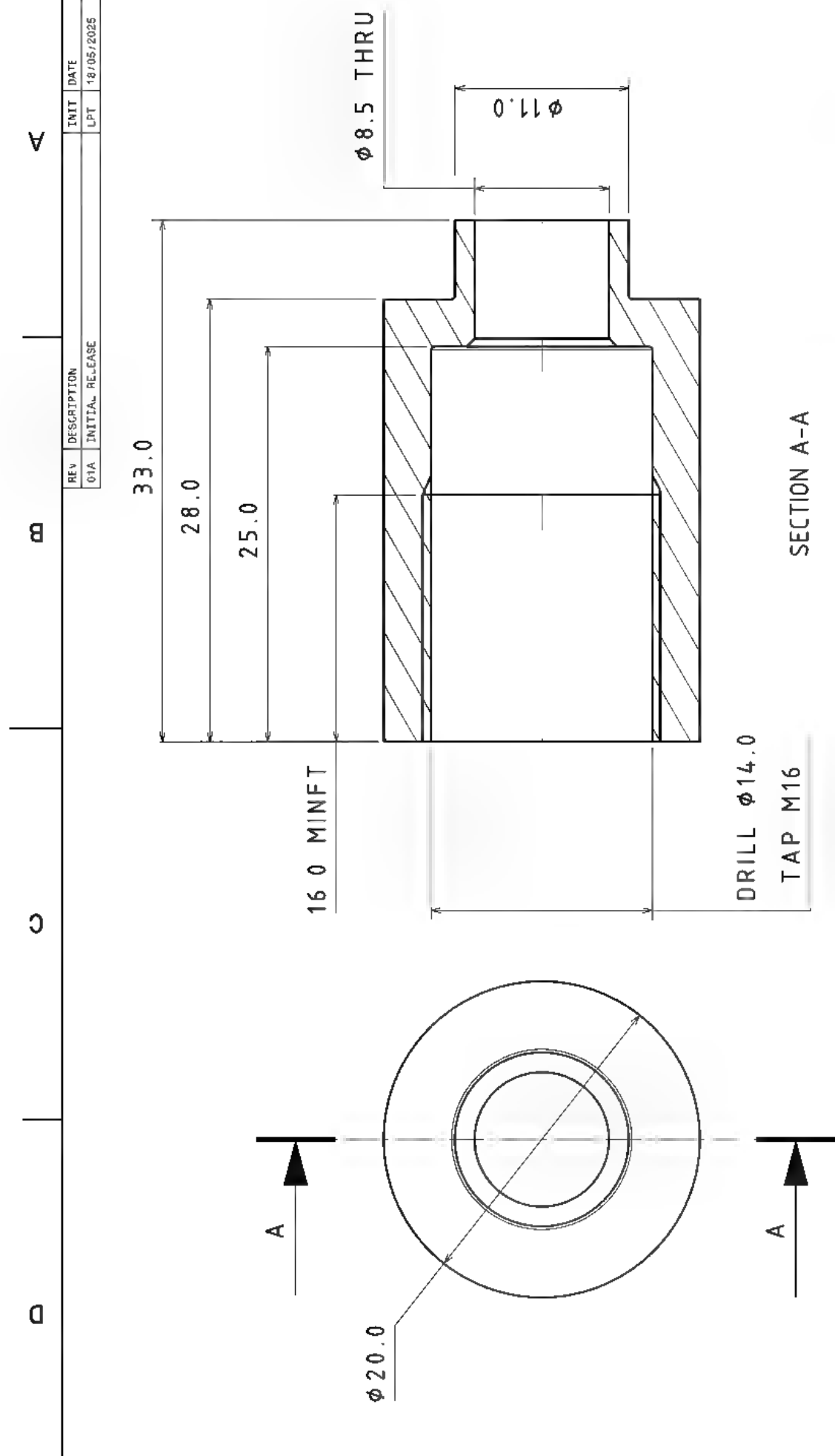
MATERIAL SPEC.	ALUMINIUM
HEAT TREATMENT	N/A
SURFACE FINISH	N/A
DESCRIPTION	SPRING CAP UPR ACCELERATOR PEDAL

REMOVE BURRS AND SHARP EDGES
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SHEET 1/1	PART NUMBER	UBR28 PB N 108 01A
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NOTES:

1) ADD CHAMFER ON INTERNAL HOLE WITH DEBURRING

TOOL

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.013		ALUMINIUM	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES U D S		DRAWN BY				N A	
A4		0 DECIMAL PLACES							
		1 DECIMAL PLACE							
		2 DECIMAL PLACES							
		3 DECIMAL PLACES							
		GENERAL CONCENTRICITY		0.1 TIR					
		ANGULAR TOLERANCE		±0.25					
TEL +44 (0)121 414 4218									
E-MAIL ubracing@gmail.com									
		REMOVE BURRS AND SHARP EDGES							
		This drawing and the copyright herein are the property of UBRacing. It is to be used as a reference only and is not to be used for manufacturing without the written consent of UBRacing.							

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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	LPT	18/05/2025

4

3

2

1

4

3

2

1

9.0

8.0

Ø 13.0

Ø 8.5
8.25

Ø 6 THRU

A

A

SECTION A-A

UBRacing

IF IN DOUBT ASK

A4 DO NOT SCALE

TEL +44 (0)121 414 4218

E-MAIL ubracing@gmail.com

MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES 0.8

0 DECIMAL PLACES ±0.50

1 DECIMAL PLACES ±0.25

2 DECIMAL PLACES ±0.10

3 DECIMAL PLACES ±0.02

GENERAL CONCENTRICITY 0.1 TIR

ANGULAR TOLERANCE ±0.25°

REMOVE BURRS AND SHARP EDGES

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copied or communicated in any form without the written consent of UBRacing.

COMPONENT

NAME (S)

DRAWN BY

LPT

SCALE

5:1

SHEET

1/1

PART

UBR28 PB N

NUMBER

110 02A

MATERIAL

TEST

SURFACE

FINISH

DESCRIPTION

INSERT SPRING CAP ACCELERATOR

PEDAL

IG. IDUR

N/A

N/A

N/A

N/A

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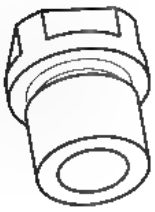
REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	LPT	18/05/2025

4

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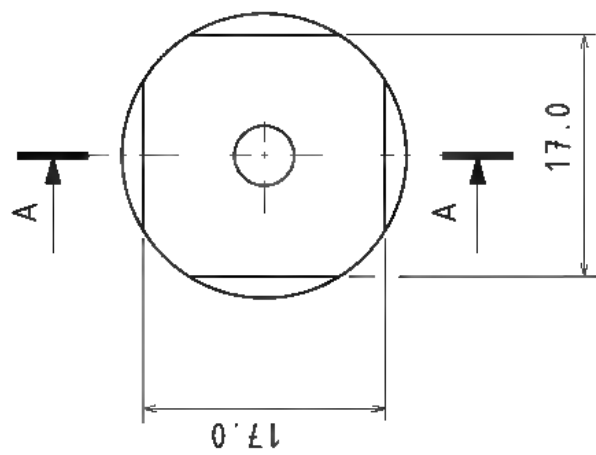
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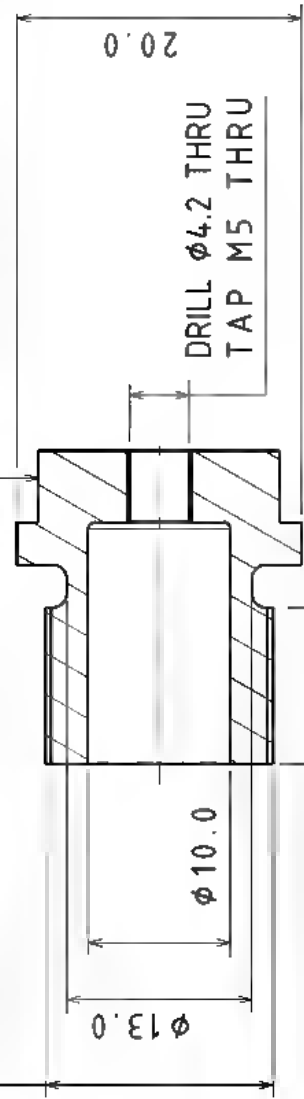
ISOMETRIC VIEW (1:1)

SECTION A-A

MACHINE $\phi 16.0$
M16 OUTSIDE THREAD




FLAT EDGE MADE ON MILL



11.0 MINFT

NOTES:

- 1) MAKE SQUARE EDGES WITH FILE
- 2) MAKE 3 mm GAP WITH PARTING TOOL

UBRacing		MATERIAL CERTIFICATE REQUIRED			COMPONENT* BUSH (96)	0.0095	MATERIAL 2024	A. UMINIUM				
DIMENSIONS IN MILLIMETRES 0 0 8												
A4	IF IN DOUBT	ASK	0 DECIMAL PLACES ± 0.50	DRAWN BY	LPT	SURFACE TREATMENT	N A	N A				
	DO NOT	SCALE	1 DECIMAL PLACES ± 0.25									
	TEL	+44 (0)121 414 4218	2 DECIMAL PLACES ± 0.10									
	E-MAIL	ubracings@gmail.com	3 DECIMAL PLACES ± 0.02									
			GENERAL CONCENTRICITY 0.1 TIR	DESCRIPTION					SPRING CAP ROD END			
			ANGULAR TOLERANCE ± 0.25°									
			REMOVE BURS AND SHARP EDGES	SCALE					5:1		SHEET PART NUMBER	UBR28 PB N 111 01A
			This drawing and the copyright herein are the property of UBRacing. It is hereby acknowledged that it is not to be reproduced or used in any form without the written consent of UBRacing.									

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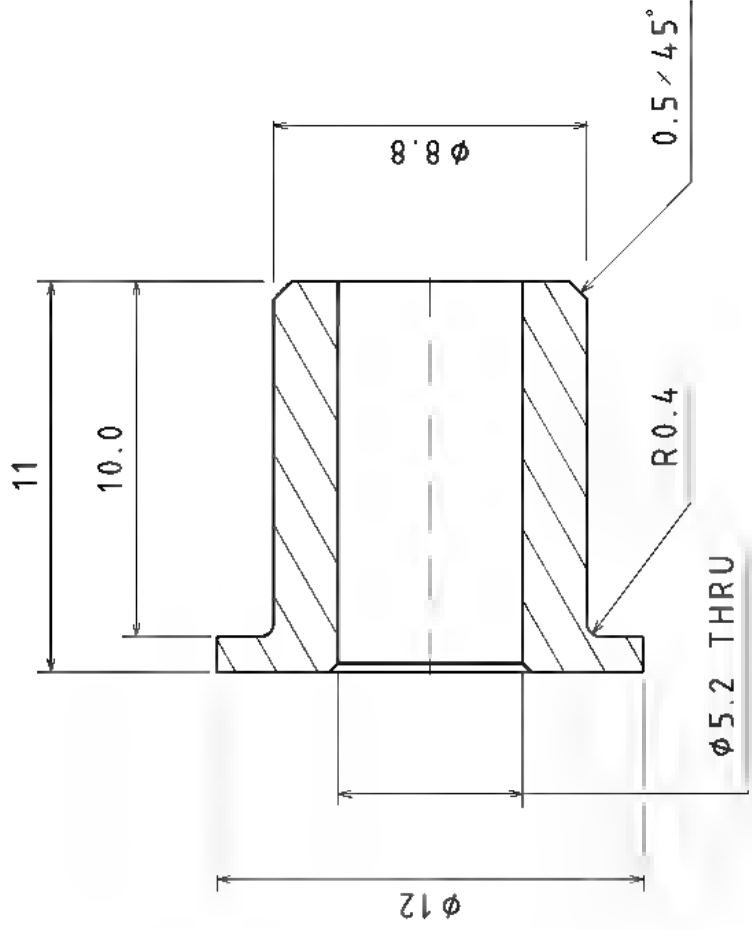
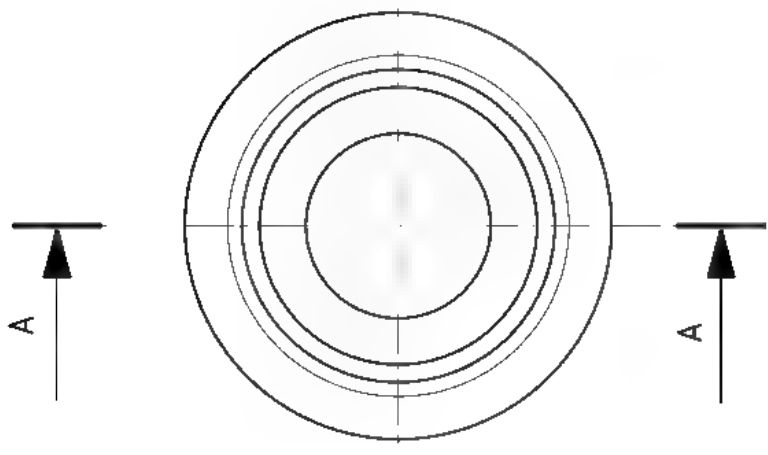
REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	LPT	05/04/2025

4

3

2

1



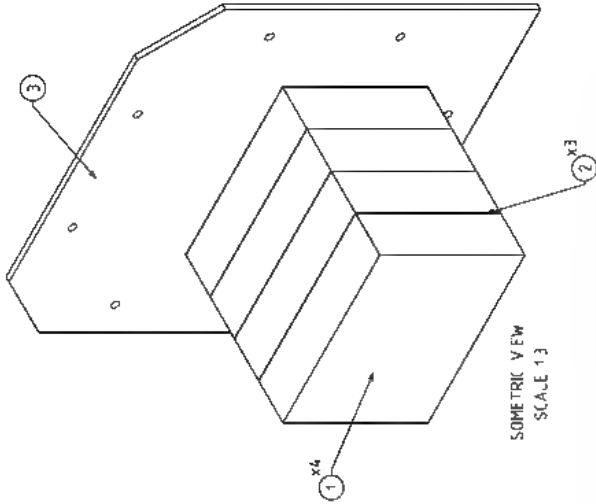
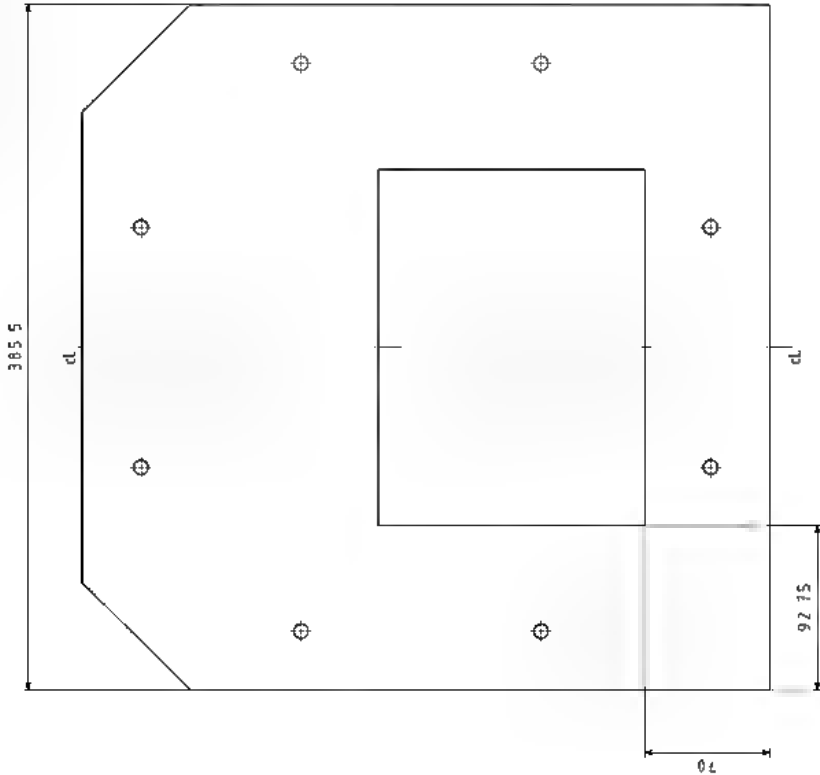
NOTES:

1) MAKE HOLE CHAMFER WITH DEBURRING TOOL

SECTION A-A

UBRacing		MATERIAL CERTIFICATE REQUIRED			COMPONENT N/A	N/A	MATERIAL A.UMINIUM	
		DIMENSIONS IN MILLIMETRES ± 0.5						
A4	IF IN DOUBT	ASK	0 DECIMAL PLACES	± 0.50	DRAWN BY	LPT	N/A	
			1 DECIMAL PLACES	± 0.25				
			2 DECIMAL PLACES	± 0.10				
			3 DECIMAL PLACES	± 0.02				
	DO NOT SCALE		GENERAL CONCENTRICITY	± 0.10	DESCRIPTION	TOP HAT CLEVIS ACCELERATOR PEDAL	SHEET PART NUMBER	
TEL	+44 (0)121 414 4218		ANGULAR TOLERANCE	$\pm 0.25^\circ$				
E-MAIL	ubracings@gmail.com	REMOVE BURS AND SHARP EDGES			SCALE	5:1	1/1	
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								112 01A

ITEM	PART NO	DESCRIPTION	QTY	BOND PREP	ADHESIVE
1	JBR28 CH N 915	IMPACT ATTENUATOR BLOCK	4	SEE NOTES	PERMABOND ETS429
2	JBR28 CH N 916	IMPACT ATTENUATOR BONDING SURFACE	3	SEE NOTES	PERMABOND ETS429
3	JBR28 CH N 920	ANT - NITRUS ON PLATE	1	SEE NOTES	PERMABOND ETS429



NOTES

- PART IS SYMMETRIC ABOUT CENTRELINE
- ABRASE ALL BONDING SURFACES WITH 120 GRIT
- CLEAN BONDING SURFACES WITH IPA AND ALLOW TO FLASH DRY
- BOND USING ADHESIVE AS PER PARTS LIST
- APPLY ADHESIVE TO BONDING SURFACES USING A SPREADER TO ACHIEVE A UNIFORM DISTRIBUTION OF ADHESIVE

UBRacing

IF IN DOUBT ASK
DO NOT SCALE

Tel: +44 (0)12 414 4278
E Mail: ubracing@gmail.com

MATERIAL CERTIFICATE REQUIRED
DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
0 DECIMAL PLACES
1 DECIMAL PLACES
2 DECIMAL PLACES
3 DECIMAL PLACES
GENERAL CONCENTRICITY
ANGULAR TOLERANCE
REMOVE BURRS AND SHARP EDGES

QUANTITY
2.45

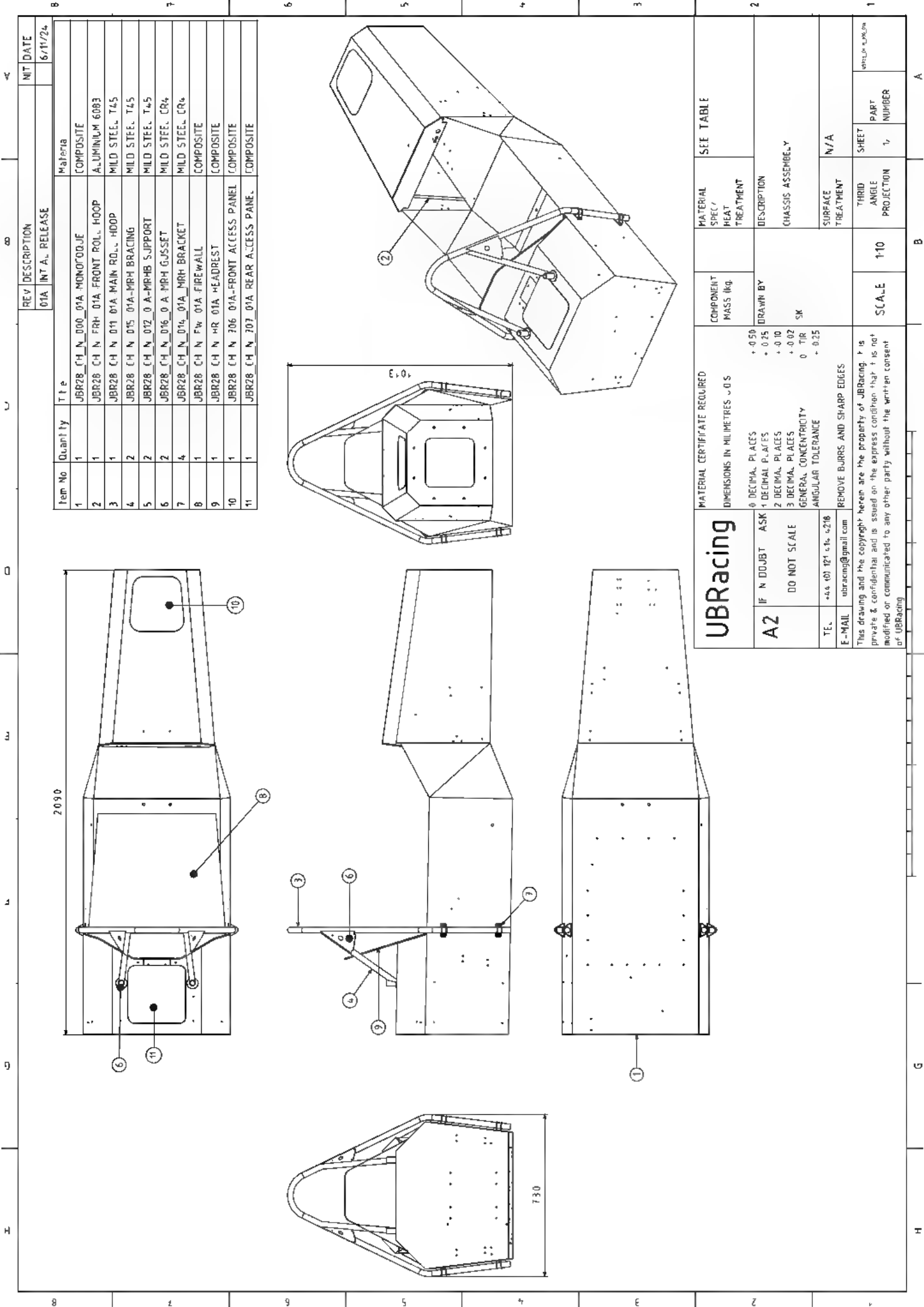
DRAWN BY
HCF

SCALE
1:2

SHEET
1/1

PART
NUMBER
JBR28 CH N 917

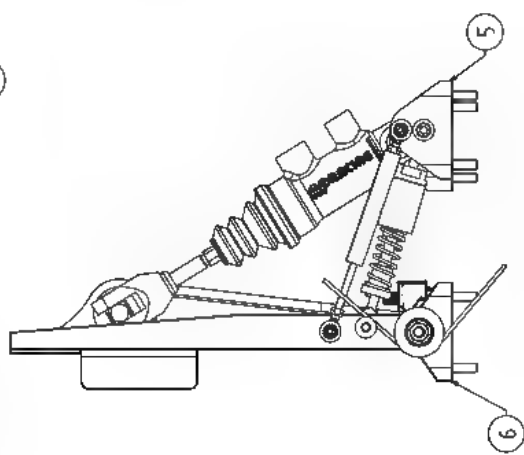
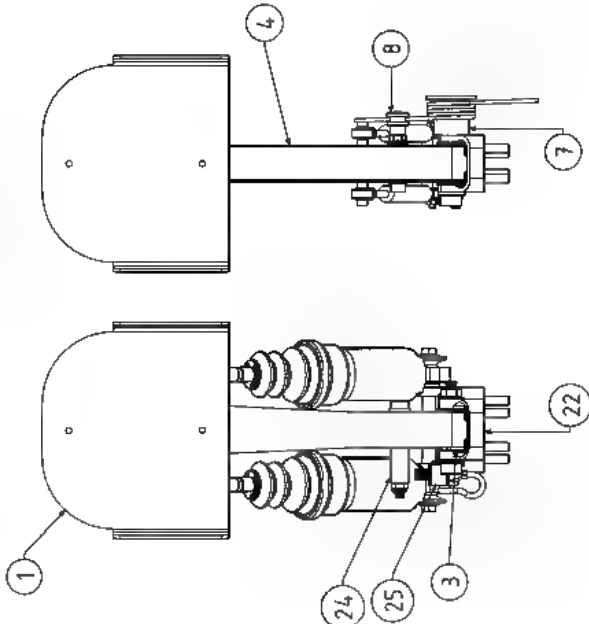
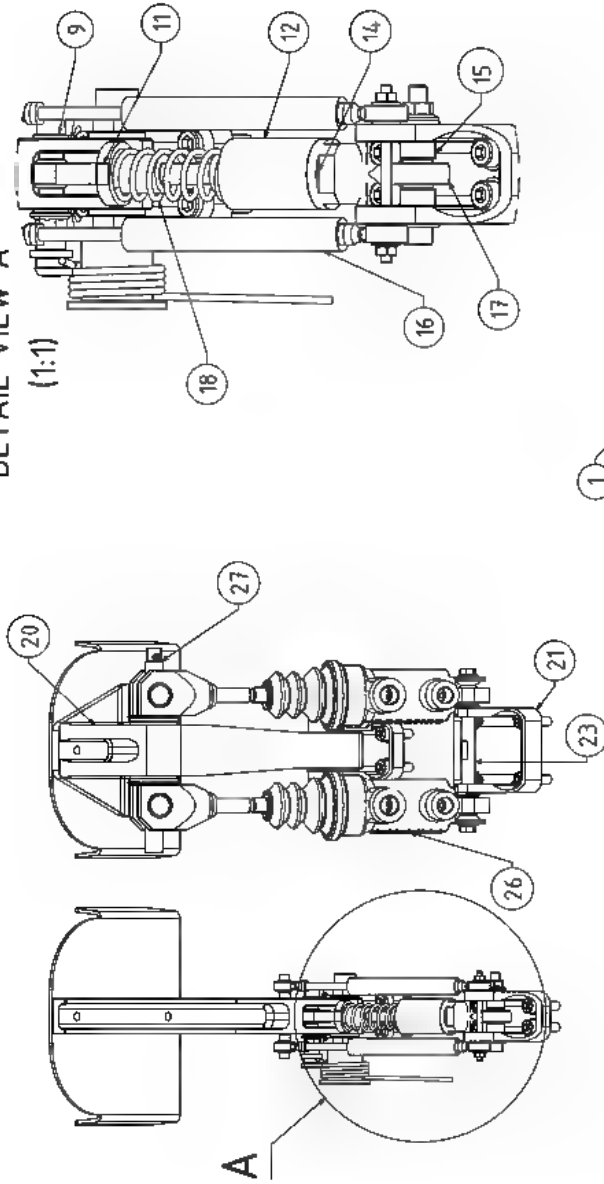
IMPACT ATTENUATOR
ASSEMBLY



Item No	Quantity	Title	Material
1	1	JBR28_CH_N_000_01A_MONOFOQUE	COMPOSITE
2	1	JBR28_CH_N_FRH_01A_FRONT ROLL HOOP	ALUMINUM 6083
3	1	JBR28_CH_N_011_01A_MAIN ROLL HOOP	MILD STEEL T45
4	2	JBR28_CH_N_015_01A-MRH BRACING	MILD STEEL T45
5	2	JBR28_CH_N_012_0 A-MRH SUPPORT	MILD STEEL T45
6	2	JBR28_CH_N_016_0 A MRH GUSSET	MILD STEEL CR4
7	4	JBR28_CH_N_014_01A_MRH BRACKET	MILD STEEL CR4
8	1	JBR28_CH_N_Fw_01A FIREWALL	COMPOSITE
9	1	JBR28_CH_N_HR_01A HEADREST	COMPOSITE
10	1	JBR28_CH_N_706_01A-FRONT ACCESS PANEL	COMPOSITE
11	1	JBR28_CH_N_707_01A REAR ACCESS PANEL	COMPOSITE

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT	SEE TABLE		
A2	IF N DOUBT ASK	DIMENSIONS IN MILLIMETRES ±0.5		MASS (kg)	MATERIAL SPEC / HEAT TREATMENT	CHASSIS ASSEMBLY	
	DO NOT SCALE			DRAWN BY	DESCRIPTION		
	TEL. +44 (0) 1274 616 4216			SK			
	E-MAIL ubracing@gmail.com				SURFACE TREATMENT		N/A
	REMOVE BURRS AND SHARP EDGES		SCALE	1:10	THIRD ANGLE PROJECTION		SHEET NUMBER 1
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DETAIL VIEW A (1:1)



Item	Part No	Part Name	Qty
1	JBR28 PB N 001 01A	TOE CAP	2
2	JBR28 PB N 002 01A	HEEL REST	1
3	JBR28 PB N 003 02A	HEEL REST	4
4	JBR28 PB N 101 01A	ACCELERATOR PEDAL ARM	1
5	JBR28 PB N 102 01A	ACCELERATOR ASSY FRONT CLEVIS	1
6	JBR28 PB N 103 02A	ACCELERATOR ASSY REAR CLEVIS	1
7	JBR28 PB N 104 01A	TOR SPRING HOLDER	1
8	JBR28 PB N 105 01A	TOR SPRING END REST	1
9	JBR28 PB N 106 01A	TOP HAT PRSD ACCELERATOR PEDAL	2
10	JBR28 PB N 107 01A	SPACER POT ACCELERATOR PEDAL	2
11	JBR28 PB N 108 01A	SPRING CAP-JPR-ACCELERATOR PEDAL	1
12	JBR28 PB N 109 01A	SPRING CAP LWR ACCELERATOR PEDAL	1
13	JBR28 PB N 110 01A	INSERT SPRING CAP THROTTLE PEDAL	1
14	JBR28 PB N 111 01A	SPRING CAP-ROD END	1
15	JBR28 PB N 112 03A	TOP HAT-CLEVIS-ACCELERATOR PEDAL	2
16	MTL-88386	POTENTIOMETER	2
17	-	ROD END	2
18	-	COMPRESSION SPRING	1
19	-	TORSION SPRING	1
20	JBR28 PB N 201 03A	BRAKE PEDAL ARM	1
21	JBR28 PB N 202 01A	FRONT BRAKE ASSY CLEVIS	1
22	JBR28 PB N 203 02A	REAR BRAKE ASSY CLEVIS	1
23	JBR28 PB N 204 02A	MTY. BAR-BRAKE PEDAL	1
24	JBR28 PB N 205 01A	BOTS ACTVAT ON BAR	1
25	JBR28 PB N 206 01A	BOTS BRACKET	1
26	AP CP1855 96PRTE	MASTER CYLINDER	2
27	AP CP5500-4	BALANCE BAR	1

UBRacing

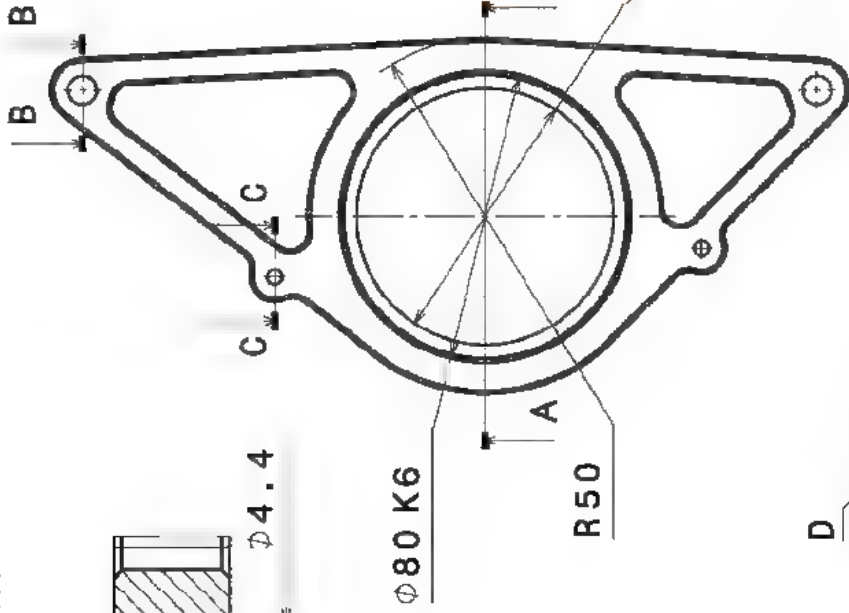
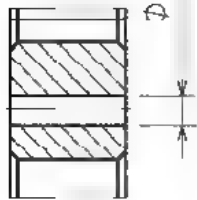
IF IN DOUBT ASK
A2 DO NOT SCALE
TEL +44 (0)12 414 4218
E MAIL ubracing@mail.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES	UNITS
0 DECIMAL PLACES	±0.50
1 DECIMAL PLACES	±0.25
2 DECIMAL PLACES	±0.10
3 DECIMAL PLACES	±0.02
GENERAL CONCENTRICITY	0 TIR
ANGULAR TOLERANCE	±0.25°

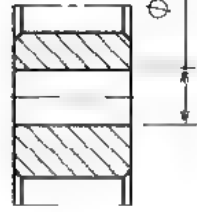
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CUSTOMER	DATE	BY
DRWING BY		
LPT		
SCALE	1:2	
SHEET	1/1	
PART NUMBER	JBR28 PB_000	
	01A	

SECTION VIEW C-C
SCALE: 1:1
OOP
TYP. 2



SECTION VIEW B-B
SCALE: 1:1
OOP
TYP. 2



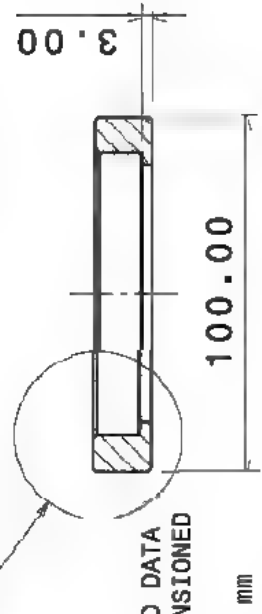
R1.0 MAX

1 x 45°
TYP.



DETAIL D
SCALE: 1:1

- NOTES:
1. REFER TO CAD DATA FOR ALL UNDIMENSIONED GEOMETRY
 2. ALL RADII 5 mm UNLESS SPECIFIED
 3. ALL CHAMFERS 1 X 45°



SECTION VIEW A-A
SCALE 1:2

UBRacing

IF IN DOUBT ASK
A4 DO NOT SCALE

TEL +44 (0)121 414 4218
E MAIL ubracing@bt.com

MATERIAL CERTIFICATE REQUIRED
DIMENSIONS IN MILLIMETRES J 0 3
0 DECIMAL PLACES
1 DECIMAL PLACES
2 DECIMAL PLACES
3 DECIMAL PLACES
GENERAL CONCENTRICITY 0 1 TIR
ANGULAR TOLERANCE 0 25

REMOVE BURRS AND SHARP EDGES

COMPONENT MASS (kg)

0.272

DRAWN BY

TLR

SS DIFF HANGER

WATERIAL SPEC ALUMINIUM 7075 T6

TREAT N/A

SURFACE TREATMENT N/A

DESCRIPTION

SS DIFF HANGER

SCALE 1:2

SHEET PART 1/1 NUMBER

UBR28 DR L 231 07A

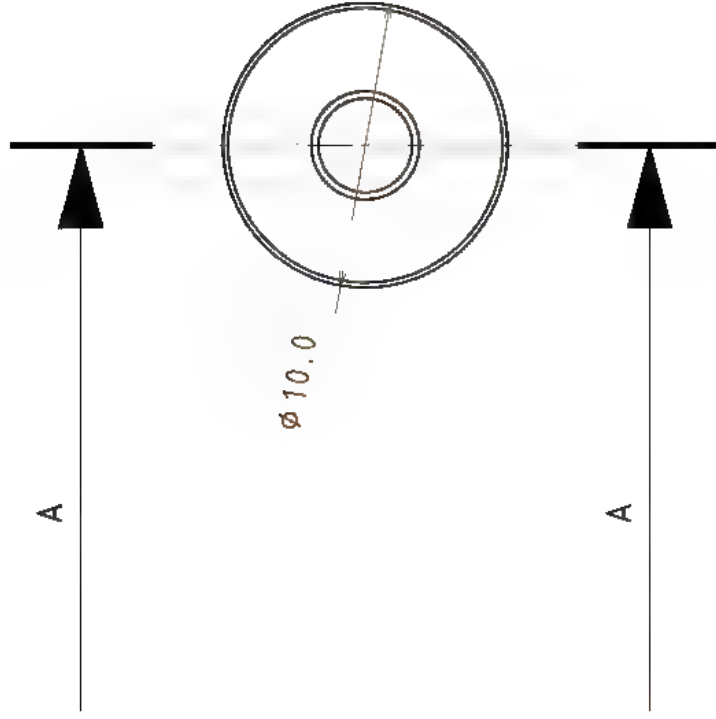
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	GA	28 02 2026



Section A-A

R 0.2

Ø 10.0

Ø 7.6

10.0

12.0

M4 DRILL 3.3
TAP M4 x 0.7

NOTES:

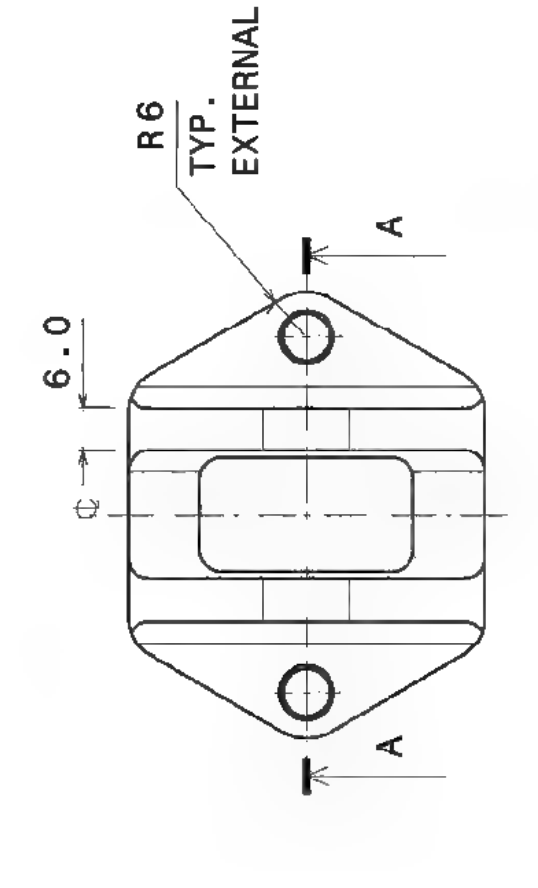
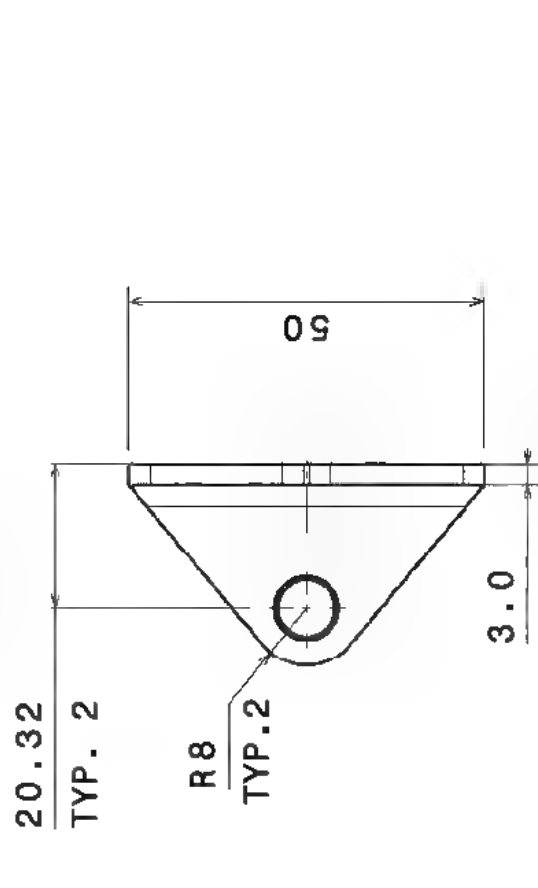
- 1 - CHAMFER ALL EDGES 0.25 x 45°
- 2 - 4 OF THESE NEEDED

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.001		A. ALUMINIUM 6082	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES ± 0.3		DRAWN BY		GA		N/A	
A4		DO NOT SCALE		0 DECIMAL PLACES ±0.50		1 DECIMAL PLACES ±0.25		N/A	
TEL. +44 (0)121 414 4218		2 DECIMAL PLACES ±0.10		3 DECIMAL PLACES ±0.02		GENERAL CONCENTRICITY 0.1 TIR		DESCRIPTION	
E-MAIL: ubracing@gmail.com		ANGULAR TOLERANCE ±0.25°		CROSSBAR INSERT		1/1		NUMBER	
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								2 01A	

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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	JA	25/12/2024

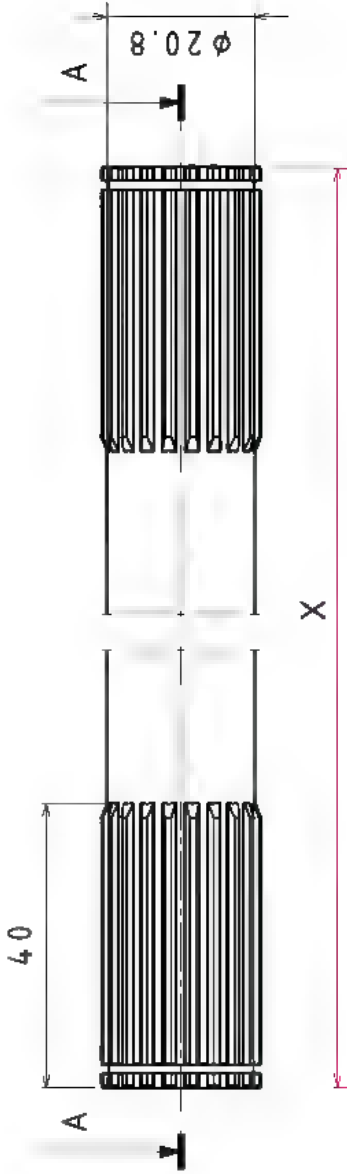
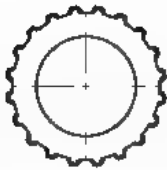


UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES J O S		SPEC		SPEC	
DO NOT SCALE		0 DECIMAL PLACES		DRAWN BY		SURFACE	
TEL +44 (0)121 414 4218		1 DECIMAL PLACES		TLR		TREATMENT	
E MAIL ubracing@gmail.com		2 DECIMAL PLACES		SCALE		DESCRIPTION	
		3 DECIMAL PLACES		1:1		DIFF HANGER CLEVIS	
		GENERAL CONCENTRICITY		SHEET		PART	
		ANGULAR TOLERANCE		1/1		NUMBER	
		REMOVE BURRS AND SHARP EDGES		UBR25 DR N 311 01A			

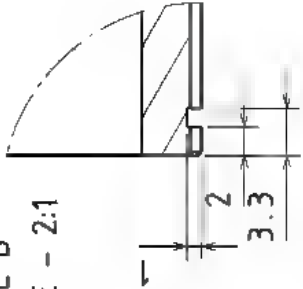
- NOTES:
- FOR ALL UNDIMENSIONED FEATURES, REFER TO CAD DATA
 - PART SYMMETRICAL ABOUT A-A & C
 - PART NUMBER POST ANODISED
 - BREAK SHARP EDGES

EXTERNAL INVOLUTE SPLINE DATA	
REFERENCE DIAMETER	22.54
MODULE	1.00
PITCH	30
NUMBER OF TEETH	20
CLASS OF FIT	6h

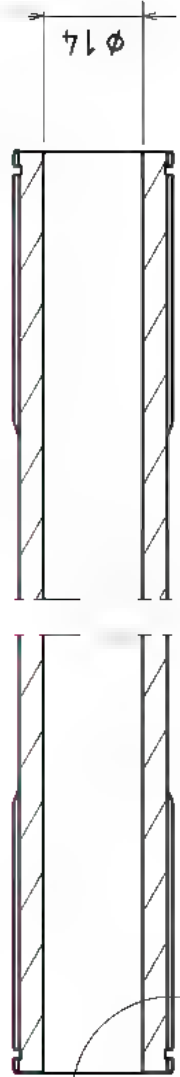
PART	PART. NO	x [mm]
SS	UBR28_DR_L_413_01A	330.34
NSS	UBR28_DR_R_513_01A	364.38



DETAIL B
SCALE - 2:1



SECTION VIEW A-A



NOTES:

- 1 - CHAMFER EXTERNAL EDGES 0.5 X 4.5
- 2 - CUT SPLINE TO DIN 5480
- 3 - PART SYMMETRICAL ABOUT CENTRELINE AND
BROKEN VIEW

UBRacing

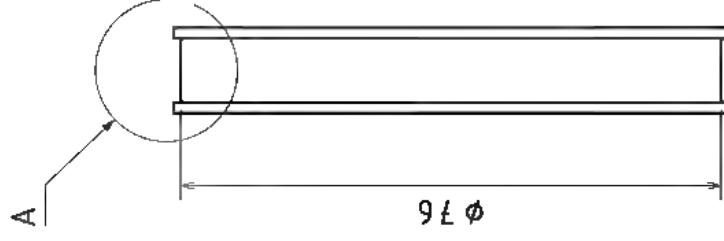
IF IN DOUBT	ASK
DO NOT	SCALE
TEL.	+44 (0)121 414 4218
E-MAIL	ubracings@gmail.com

MATERIAL CERTIFICATE REQUIRED	DIMENSIONS IN MILLIMETRES 0.05
0 DECIMAL PLACES	±0.50
1 DECIMAL PLACES	±0.25
2 DECIMAL PLACES	±0.10
3 DECIMAL PLACES	±0.02
GENERAL CONCENTRICITY	0.1 TIR
ANGULAR TOLERANCE	±0.25°

REMOVE BURRS AND SHARP EDGES
This drawing and the copyright herein are the property of UBRacing. It is to be used as a confidential document and is not to be reproduced or communicated in any way without the written consent of UBRacing.

COMPONENT NAME	DRIVEN BY	GIVEN IN TABLE	ENSOB
GA	GA	GA	N/A
DESCRIPTION	DRIVESHAFTS	DESCRIPTION	N/A

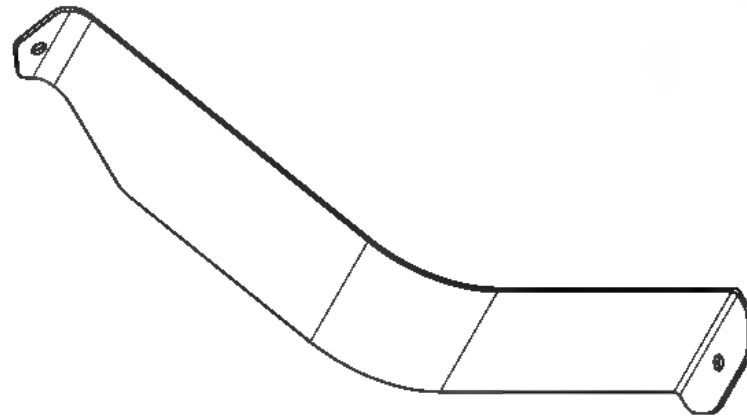
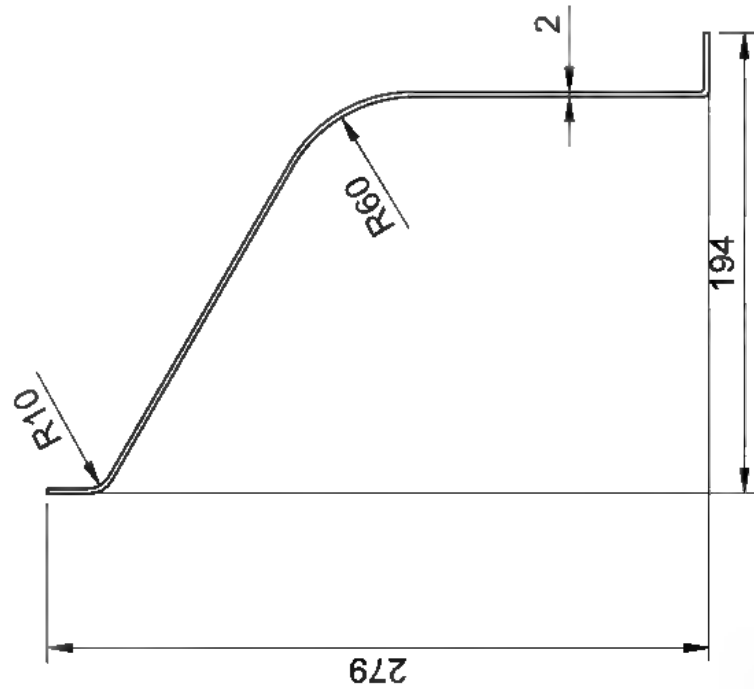
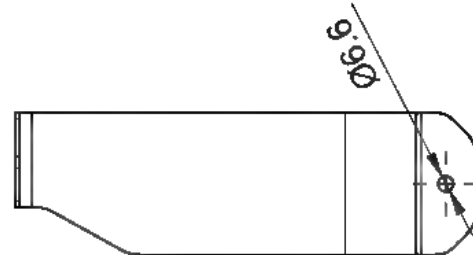
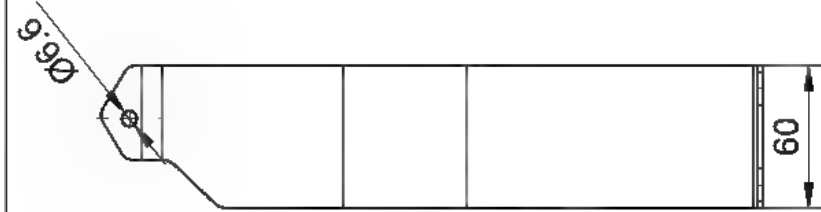
SHEET NUMBER	1/1	PART NUMBER	GIVEN IN TABLE
--------------	-----	-------------	----------------



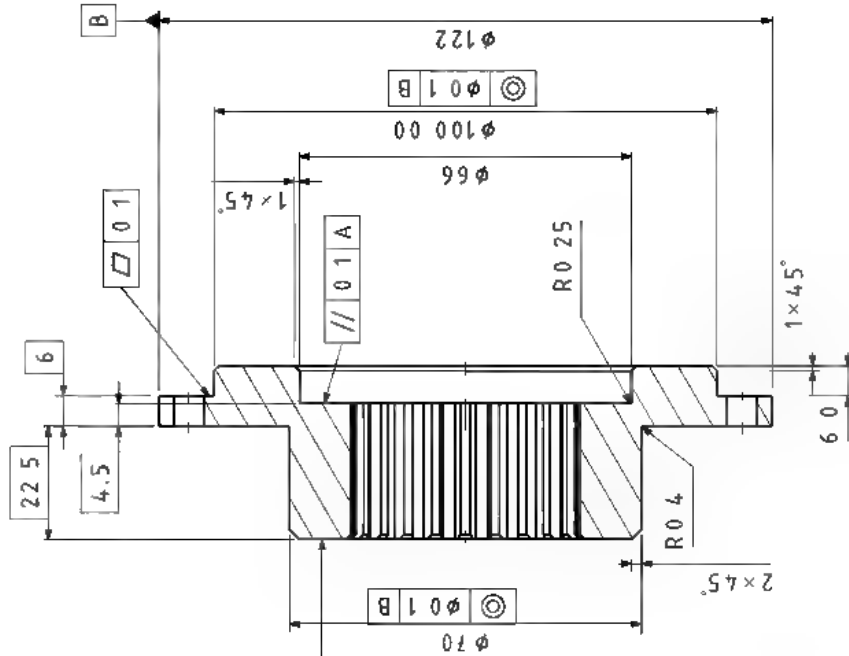
1 - FOR ALL UNDIMENSIONED FEATURES,
REFER TO CAD DATA

2 - ALL BOLT HOLES HAVE THE SAME
GEOMETRY

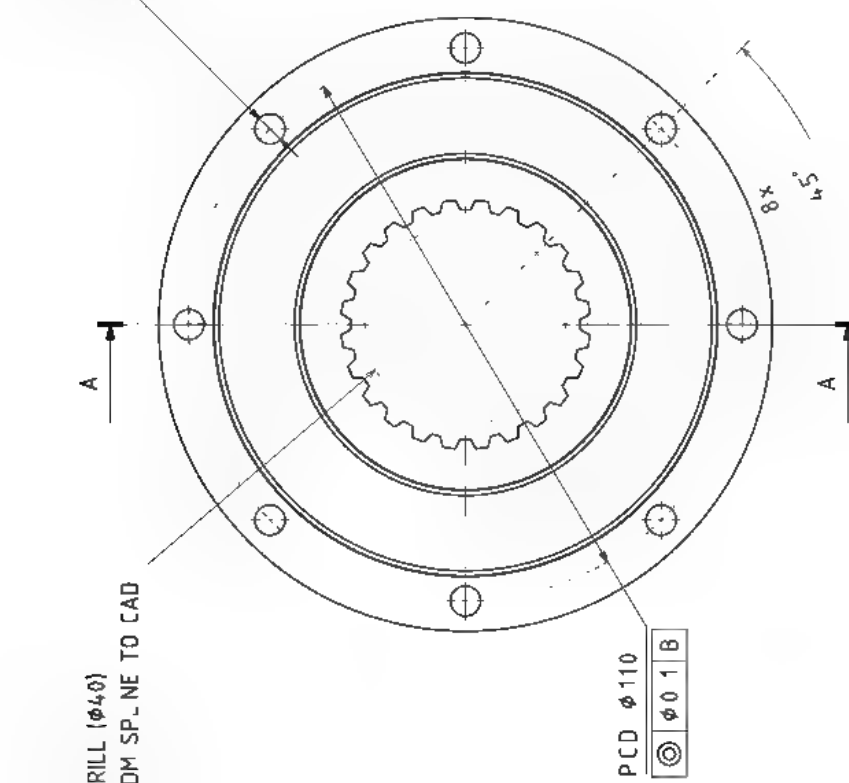
[illegible]



UBRacing		Tolerances		Component Mass (kg)	0.224	Material	Steel CR4
		0 D P	±0.50				
		1 D P	±0.25	Drawn By		Heat Treatment	N/A
		2 D P	±0.10				
		3 D P	±0.02				
A4 Do Not Scale		Angular	±0.25°				
E-Mail Contact		Internal Chain Guard					
ultracing@gmail.com		SCB					
		Remove Burrs & Sharp Edges					
		Scale				Sheet: 1/1	Part Number
		1:3				JBR28 DR N 6°5 0°C	
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SECTION A-A



NOTES

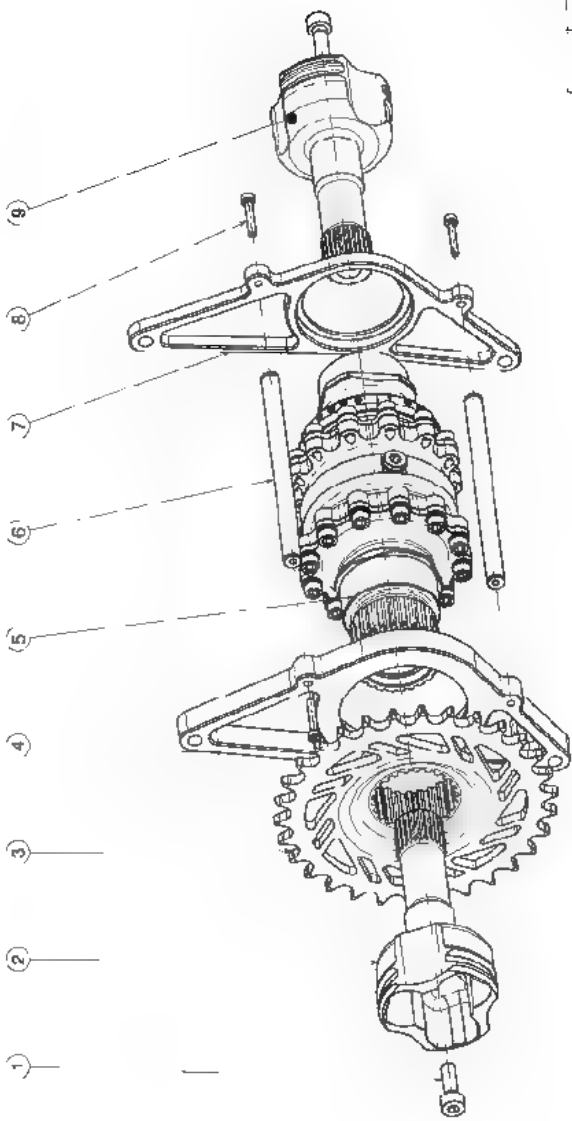
- 1 - EDM SPLINE TO CAD
- 2 - HOLES TO BE REAMED WITH ISC1013169
- 3 - 100 mm FLANGE TO BE CUSTOM FIT TO JBR28_PT_N_613_02C
- 4 - BREAK ALL SHARP EDGES
- 5 - REFER TO CAD FOR ANY UNDIMENSIONED FEATURES
- 6 - GENERAL TOLERANCES IN TABLE (LOC, (2))

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES w/o S		MASS, kg		SPEC	
A3		0 DECIMAL PLACES		DRAWN BY		0.283	
DO NOT SCALE		1 DECIMAL PLACES		GA		N A	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES		DESIGN, P, / ON		7075 T6	
E MAIL jbracing@gmail.com		3 DECIMAL PLACES		SHEET		1/1	
This drawing and the copyright herein are the property of UBRacing. It is not to be used, copied, or reproduced in any form without the written consent of UBRacing.		GENERAL TOLERANCE		SCALE		1:1	
		REMOVE BURRS AND SHARP EDGES		PART NUMBER		UBR28_DR_N_613_02C	
				SHEET		1/1	
				PART NUMBER		UBR28_DR_N_613_02C	

8 7 6 5 4 3 2 1

REV DESCRIPTION
C/A INITIAL RELEASE

1017 DATE
TJR 11/04/04



ITEM	QTY	PART NO.	DESCRIPTION
1	2	UBR28 DR N 003	TRIPOD HOUSING RETAINING BOLT M8X1 25X25
2	1	UBR28 DR L 601	SPROCKET SIDE TRIPOD HOUSING
3	1	UBR28 DR N 703	DRIVEN SPROCKET (30 TOOTH)
4	1	UBR28 DR L 302	SPROCKET SIDE HANGER
5	1	UBR28 DR N 400	DREXLER FSAE V3
6	1	UBR28 DR N 500	CROSSBAR
7	1	UBR28 DR R 302	NON-SPROCKET SIDE HANGER
8	4	UBR28 DR N 004	CROSSBAR BOLT M4X0 7X25
9	1	UBR28 DR R 601	NON SPROCKET SIDE TRIPOD HOUSING

UBRacing

IF IN DOUBT ASK

DO NOT SCALE

TEL +44 (0)121 414 4218

E-MAIL ubracing@gmail.com

REMOVE BUBBLES AND SHARP EDGES

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10.20

DRAWN BY

TJR

SCALE 1:2

SCALE 1:1

DRIVE TRAIN ASSY

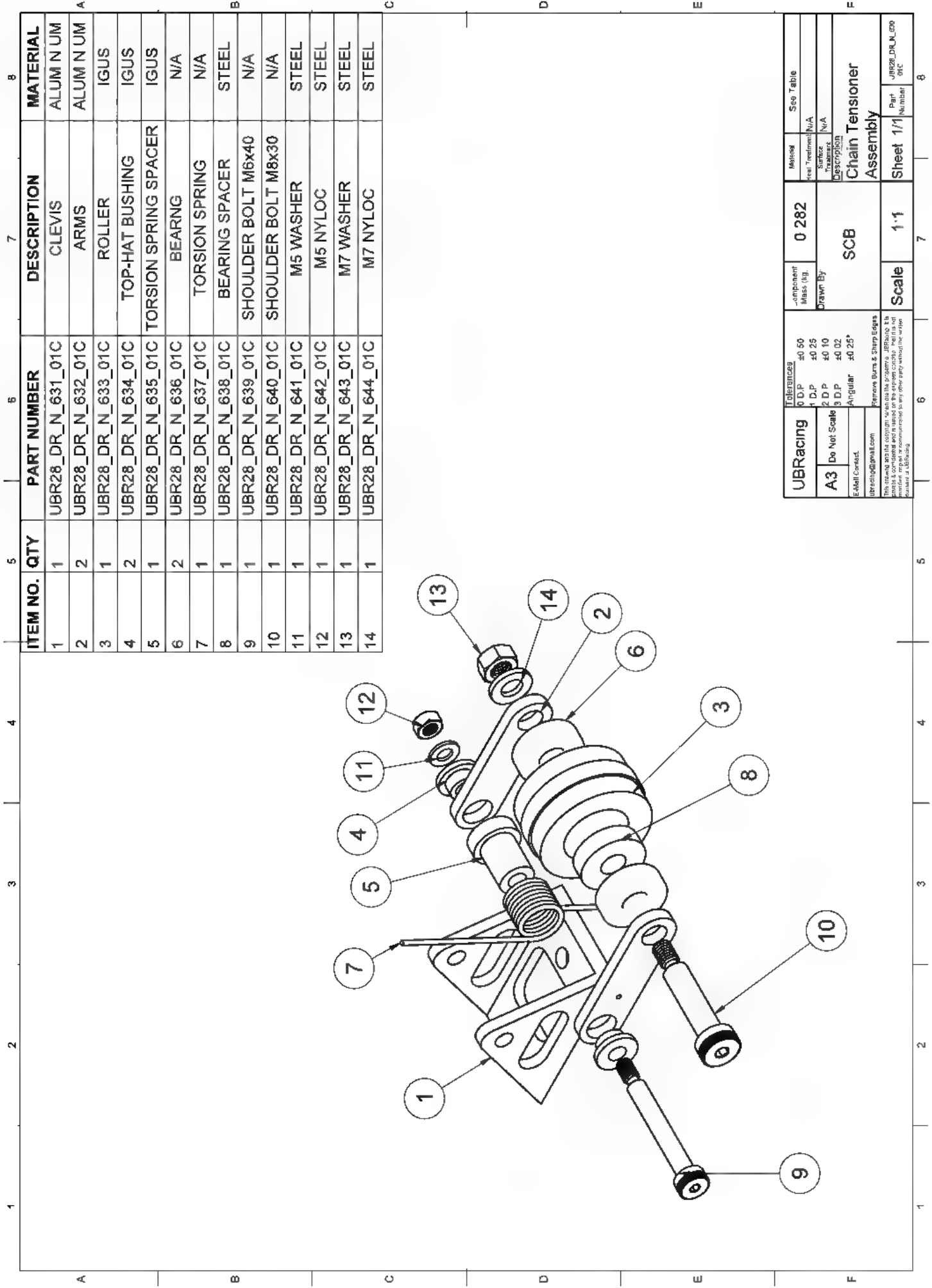
DRIVE TRAIN ASSY

1

1/1

UBR28_DR_000

8 7 6 5 4 3 2 1



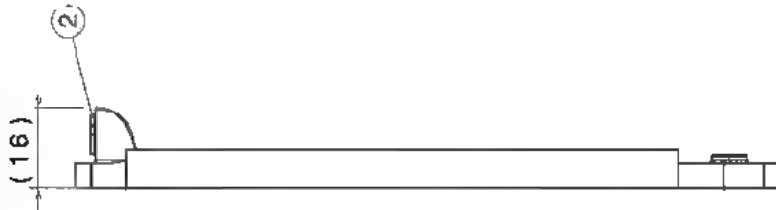
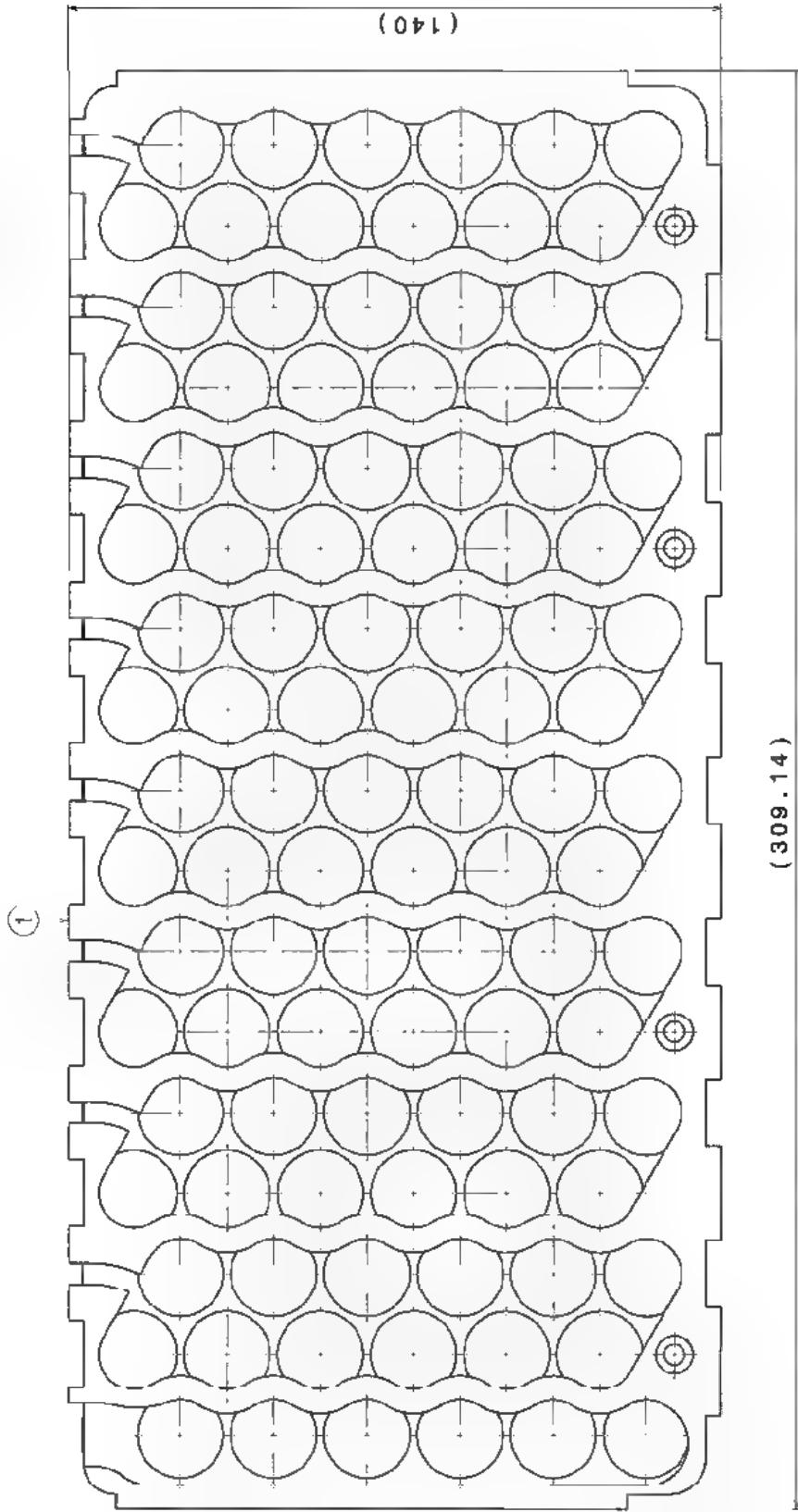
ITEM NO.	QTY	PART NUMBER	DESCRIPTION	MATERIAL
1	1	UBR28_DR_N_631_01C	CLEVIS	ALUM N UM
2	2	UBR28_DR_N_632_01C	ARMS	ALUM N UM
3	1	UBR28_DR_N_633_01C	ROLLER	IGUS
4	2	UBR28_DR_N_634_01C	TOP-HAT BUSHING	IGUS
5	1	UBR28_DR_N_635_01C	TORSION SPRING SPACER	IGUS
6	2	UBR28_DR_N_636_01C	BEARNG	N/A
7	1	UBR28_DR_N_637_01C	TORSION SPRING	N/A
8	1	UBR28_DR_N_638_01C	BEARING SPACER	STEEL
9	1	UBR28_DR_N_639_01C	SHOULDER BOLT M6x40	N/A
10	1	UBR28_DR_N_640_01C	SHOULDER BOLT M8x30	N/A
11	1	UBR28_DR_N_641_01C	M5 WASHER	STEEL
12	1	UBR28_DR_N_642_01C	M5 NYLOC	STEEL
13	1	UBR28_DR_N_643_01C	M7 WASHER	STEEL
14	1	UBR28_DR_N_644_01C	M7 NYLOC	STEEL

UBRacing	Tolerances	0 D.P.	±0.50	Material	See Table
A3	Do Not Scale	1 D.P.	±0.25	Heat Treatment	N/A
E-Mail Contact		2 D.P.	±0.10	Surface	N/A
		3 D.P.	±0.02	Description	Chain Tensioner Assembly
		Angular	±0.25°		
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				Sheet	1/1
				Part Number	UBR28_DR_N_630


H G F E D C B A

REV	DESCRIPTION	INIT	DATE
0.1	INITIAL RELEASE	CRH	

ITEM	UBR PN	QTY	DESC
1	N/A	AS REQD.	ONYX FR CC
2	UBR28_AC_N_004_01A_9		M4 AEROTIGHT NUT



- NOTES:
1. PRINT ON MARKFORGED MARK 2
 2. MAT'L TO BE ONYX FR CC
 3. PROCESS TOLERANCES FROM CAD DATA
 4. INSERT ITEM 2 DURING PRINT

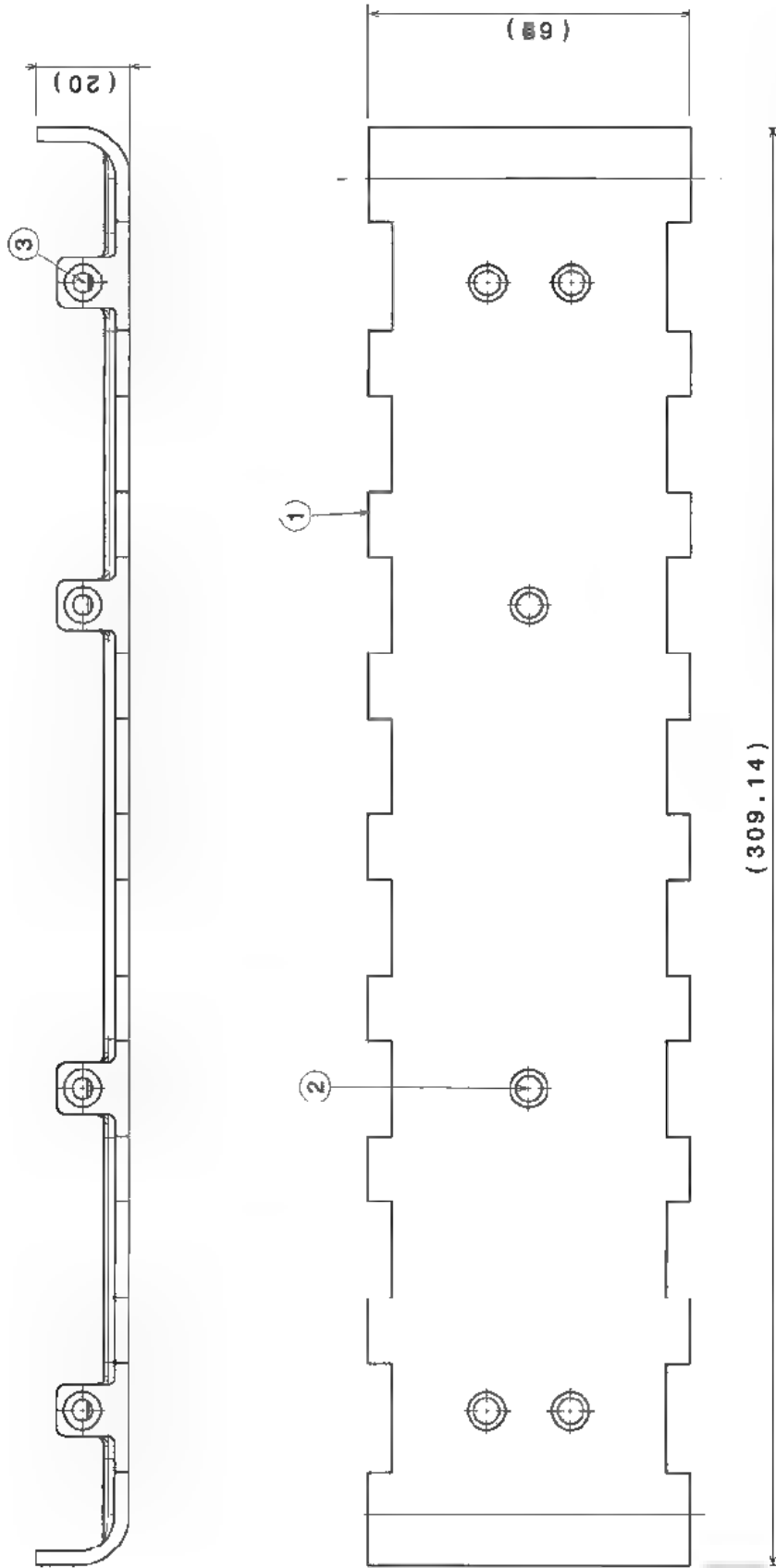
UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT	0.072	MATERIAL	SEE NOTES
A3	IF IN DOUBT - ASK DO NOT SCALE TEL: +44 (0)121 414 4218 E-MAIL: jbracing@gmail.com	DIMENSIONS IN MILLIMETRES / 0.1		DRAWN BY CRH	0.072	HEAT TREAT	N/A
		0 DECIMAL PLACES 1 DECIMAL PLACES 2 DECIMAL PLACES 3 DECIMAL PLACES GENERAL TOLERANCE ANGULAR TOLERANCE				SURFACE FINISH	N/A
		REMOVE BURRS AND SHARP EDGES				DESCRIPTION	MODULE WALL
		THIS DRAWING AND THE COPYRIGHT HEREIN ARE THE PROPERTY OF UBRACING. IT IS PRIVATE & CONFIDENTIAL AND IS ISSUED ON THE EXPRESS CONDITION THAT IT IS NOT REPRODUCED, COPIED, OR COMMUNICATED TO ANY OTHER PARTY WITHOUT THE WRITTEN CONSENT OF UBRACING.					
				SCALE	1:1	SHEET	
							PART NUMBER 1/1 UBR28_AC_N_201

H G F E D C B A

H G U L W D C Q A

REV	DESCRIPTION	DATE
0 A	INITIAL RELEASE	CIN

ITEM	UBR PN	QTY	DESC
1	N/A	AS REQD.	ONYX FR CC
2	UBR28 AC N 003 01A 6		M5 AEROTIGHT NUT
3	UBR28 AC N 004 01A 8		M4 AEROTIGHT NUT



(309.14)

UBRacing		MATERIAL SPEC		SEE NOTES	
IF IN DOUBT - ASK		0.096		N/A	
DO NOT SCALE		CRH		N/A	
TEL +44 (0)121 414 4218		SCALE 1:1		MODULE BASE	
E-MAIL ubracing@gmail.com		SHEET 1/1		PART NUMBER UBR28_AC_N_202	

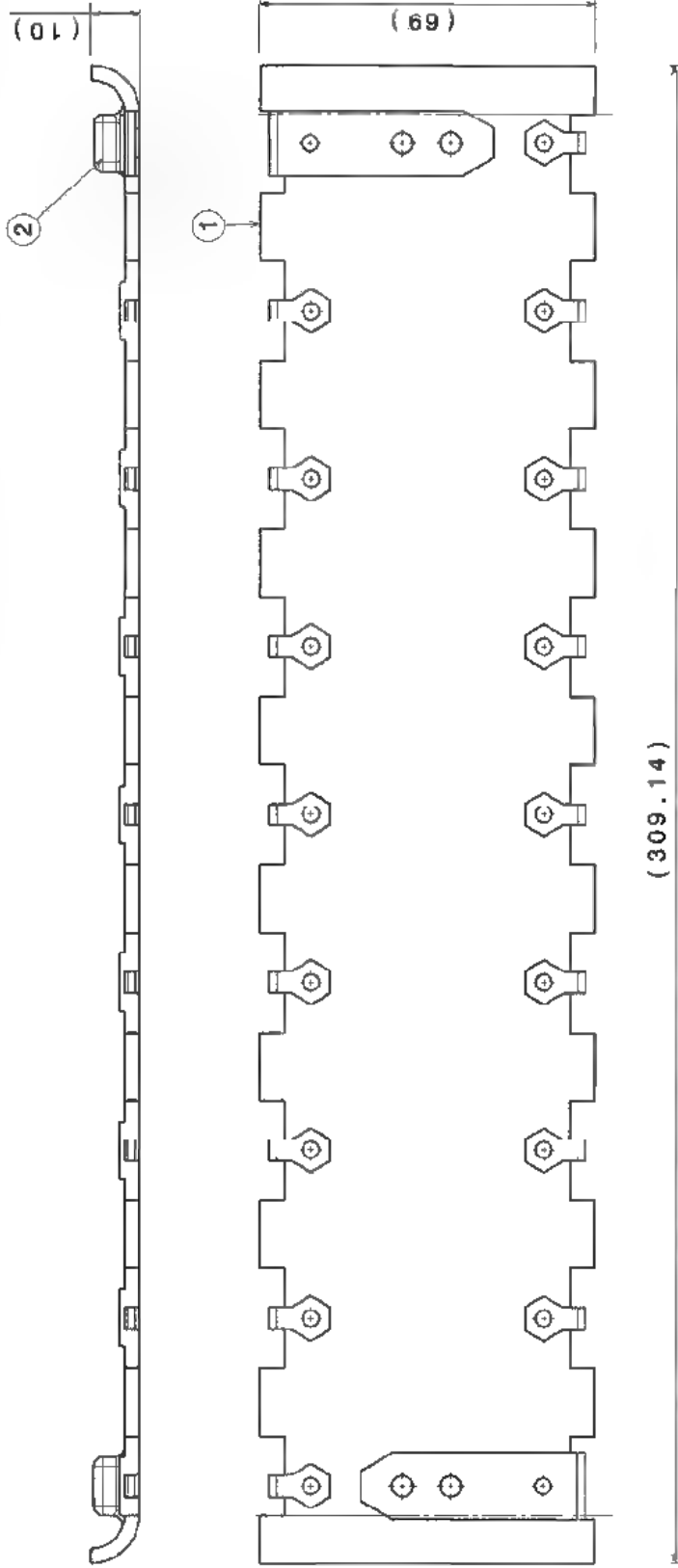
- NOTES:
1. PRINT ON MARKFORGED MARK 2
 2. MAT'L TO BE ONYX FR CC
 3. PROCESS TOLERANCES FROM CAD DATA
 4. INSERT ITEMS 2 AND 3 DURING PRINT

H G U L W D C Q A

H G L F D C B A

REV	DESCRIPTION	DATE
0 A	INITIAL RELEASE	CRH

ITEM	UBR PN	QTY	DESC
1	N/A	AS REQD.	ONYX FR CC
2	UBR28 AC N 003 01A 4	4	M5 AEROTIGHT NUT



- NOTES:
1. PRINT ON MARKFORGED MARK 2
 2. MAT L TO BE ONYX FR CC
 3. PROCESS TOLERANCES FROM CAD DATA
 4. INSERT ITEM 2 DURING PRINT

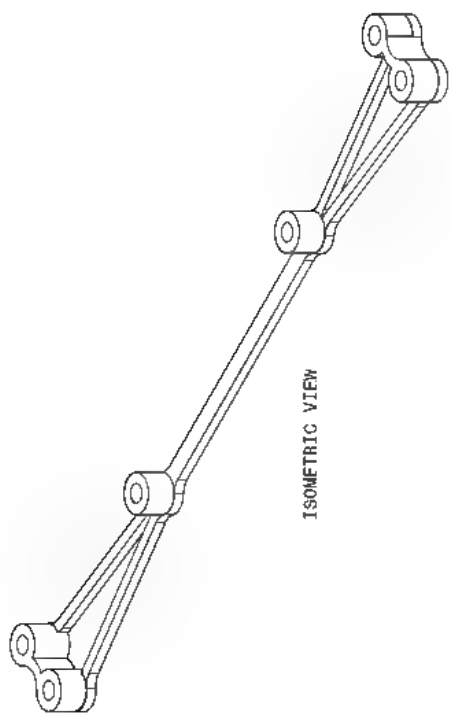
UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES / 0.5		MASS (KG)		SPEC	
A3		0 DECIMAL PLACES ±0.60		0.064		HEAT TREAT	
DO NOT SCALE		1 DECIMAL PLACES ±0.15		DRAWN BY		TEMPERATURE	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES ±0.05		CRH		TREATMENT	
E-MAIL ubracing@gmail.com		3 DECIMAL PLACES ±0.02		SCALE 1:1		DESCRIPTION	
Valid drawing and the copyright herein are the property of UBRacing. It is provided as confidential and is issued on the express condition that it is not modified, copied or communicated to any other party without the written consent of UBRacing.		GENERAL TOLERANCE 0.1 TIR		MODULE LID		PART NUMBER	
		ANGULAR TOLERANCE ±0.25°		REMOVE BURRS AND SHARP EDGES		1/1	
						UBR28 AC N 200	

H G L F D C B A

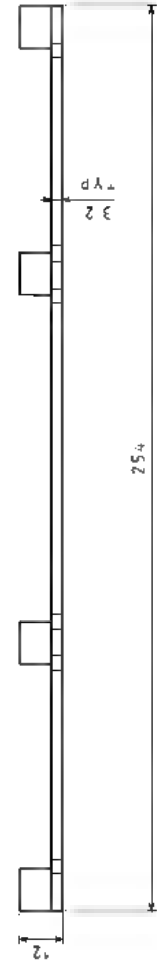
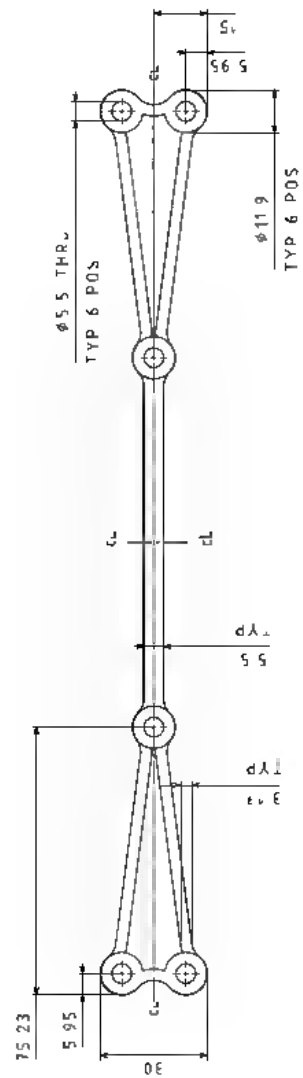
A B C D E F G H

REV DESCRIPTION
001 INITIAL RELEASE

DATE
13 DEC 2008



ISOMETRIC VIEW



NOTES

PART 5 SYMMETRICAL ABOUT CENTRELINE

UBRacing		MATERIAL CERTIFICATE REQUIRED		EQUIPMENT		0.015		NYLON 6 F	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES 0.8		MASS 10g		DRAWN BY		N A	
A2		0 DECIMAL PLACES ± 0.50		SURFACE TREATMENT		HCF		N A	
DO NOT SCALE		1 DECIMAL PLACES ± 0.25		DESCRIPTION		MODULE FEET		1	
TEL: +44 (0)12 414 4218		2 DECIMAL PLACES ± 0.10		GENERAL CONCENTRICITY		SCALE 1:1		PART NUMBER	
E MAIL: ubracing@gmail.com		3 DECIMAL PLACES ± 0.02		ANGULAR TOLERANCE		SHEET 1/1		JBR28 AC N 305 01A	
		REMOVE BURRS AND SHARP EDGES		ANGULAR TOLERANCE		PART NUMBER		JBR28 AC N 305 01A	
		This drawing and the copyright herein are the property of UBRacing. It is private & confidential, and is issued on the express condition that it is not modified, copied or communicated to any other party without the written consent of UBRacing.							

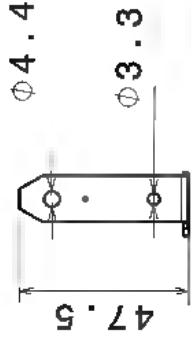
A

B

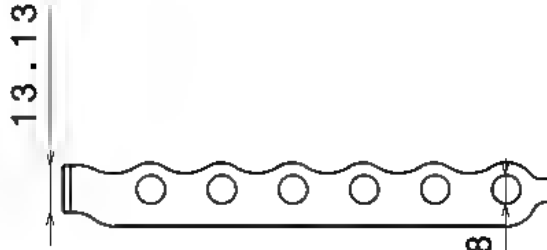
C

D

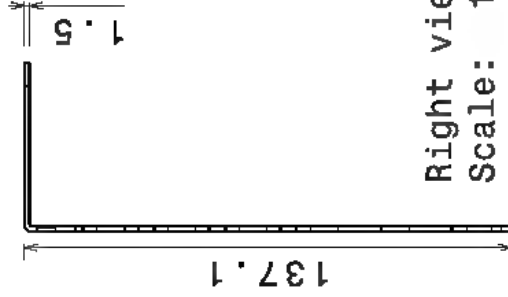
REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	JDH	16 10/24
02A	ASSEMBLY TOLERANCE ADJUSTED	JDH	17 01 25



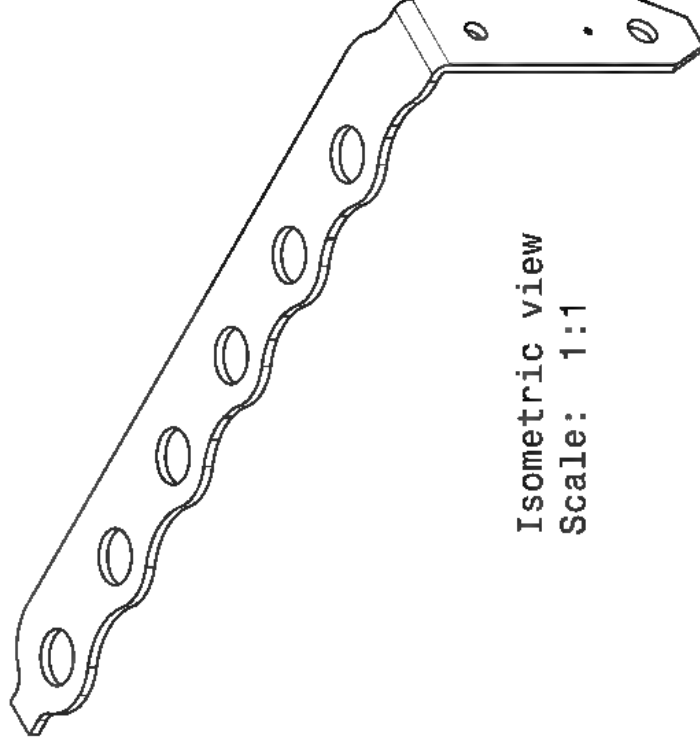
Top view
Scale: 1:2



Front view
Scale: 1:2



Right view
Scale: 1:2



Isometric view
Scale: 1:1

UBRacing

IF IN DOUBT ASK	ASK
DO NOT SCALE	SCALE
TEL: +44 (0)121 414 4218	
E-MAIL: ubracing@gmail.com	

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES ± 0.8	
0 DECIMAL PLACES	± 0.50
1 DECIMAL PLACES	± 0.25
2 DECIMAL PLACES	± 0.10
3 DECIMAL PLACES	± 0.02
GENERAL CONCENTRICITY	$0.1 \times TIR$
ANGULAR TOLERANCE	$\pm 25'$

REMOVE BURRS AND SHARP EDGES
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MATERIAL SPEC.	1 5 mm ALUMINIUM 5083
HEAT TREATMENT	N A
SURFACE FINISH	N A
DESCRIPTION	MODULE MAIN BUSBAR

COMPONENT NO. (UJ)	
DRAWN BY	JDH

SCALE	1:1
-------	-----

SHEET NUMBER	1/1
PART NUMBER	UBR28 AC N 501 02A

D

A

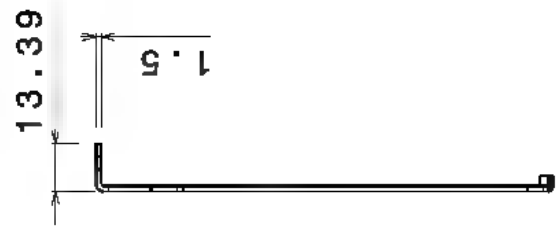
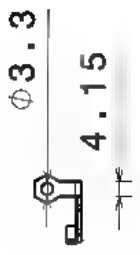
A

B

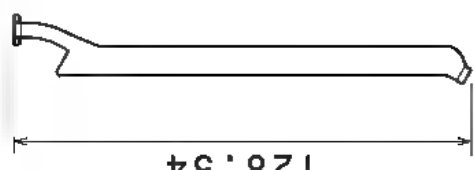
C

D

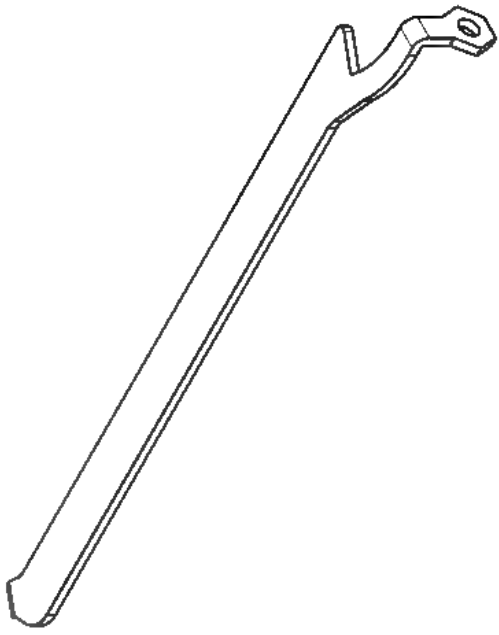
Top view
Scale: 1:2



Front view
Scale: 1:2



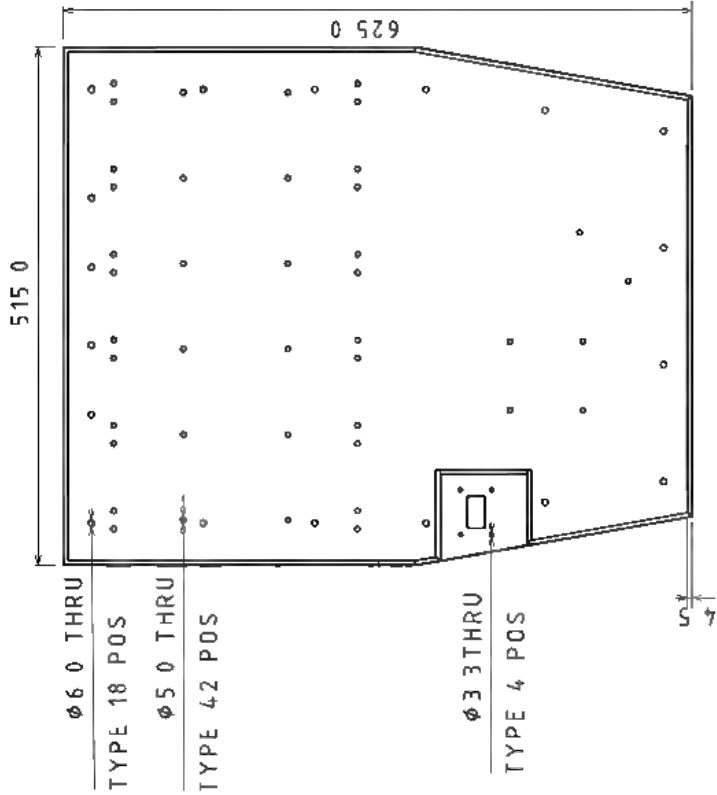
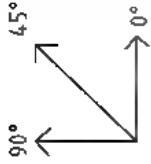
Right view
Scale: 1:2



Isometric view
Scale: 1:1

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	JDH	16/10/24
02A	ASSEMBLY TOLERANCE ADJUSTED	JDH	17/01/25

UBRacing		MATERIAL CERTIFICATE REQUIRED DIMENSIONS IN MILLIMETRES ± 0.8		COMPONENT N/A	1 5 mm ALUMINIUM 5083	
IF IN DOUBT ASK		0 DECIMAL PLACES ±0.50		DRAWN BY		
A4		1 DECIMAL PLACES ±0.25		JDH		
DO NOT SCALE		2 DECIMAL PLACES ±0.10				
TEL +44 (0)121 414 4218		3 DECIMAL PLACES ±0.02				
E-MAIL: ubracing@gmail.com		GENERAL CONCENTRICITY 0.1 TIR				
		ANGULAR TOLERANCE ± 26°				
		REMOVE BURRS AND SHARP EDGES				
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LAMINATE TABLE				
OP NO	MATERIAL SPECIFICATION	ORIENTATION	POSITION	
1	CHECK ALL TOOLING IS CORRECT AND RELEASED			
2	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER	
3	DEBJLK FOR 60 MINS			
4	EPC312FR-A170S-45-1200-NAT	45	1 PLY ON FLOOR	
5	EPC312FR-A170S-45-1200-NAT	45	1 PLY ALL OVER	
6	DEBJLK FOR 60 MINS			
7	EPC312FR-A170S-45-1200-NAT	45	1 PLY ON FLOOR	
8	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER	
9	DEBJLK FOR 60 MINS			
10	FILM BOND ADHESIVE	-	1 PLY ALL OVER	
11	5 MM NOMEX HONEYCOMB CORE	-	FLOOR	
12	3 MM NOMEX HONEYCOMB CORE	-	WALLS	
13	FIT INSERTS AND LOCATE USING RESIN PINS			
14	FILM BOND ADHESIVE	-	1 PLY ALL OVER	
15	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER	
16	DEBJLK FOR 60 MINS			
17	EPC312FR A170S 45 1200 NAT	45	1 PLY ON FLOOR	
18	EPC312FR A170S 45 1200 NAT	45	1 PLY ALL OVER	
19	DEBJLK FOR 60 MINS			
20	EPC312FR-A170S-45-1200-NAT	45	1 PLY ON FLOOR	
21	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER	
22	PEEL PLY	-	-	
CURE	VACUUM BAG AND CURE, 30 MINS RAMP UP TO 120C, HOLD FOR 120MINS, RAMP DOWN			

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		N/A		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES U O S		MASS .kg		DRAWN BY		SPEC	
A3		0 DECIMAL PLACES		+0 50		SK		REACT	
DO NOT SCALE		1 DECIMAL PLACES		+0 25		N/A		TREATMENT	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES		+0 0		N/A		SURFACE	
E MAIL ubracing@gmail.com		3 DECIMAL PLACES		+0 02		N/A		TREATMENT	
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		REMOVE BUBBLES AND SHARP EDGES		+0 207		N/A		ACCUMULATOR CASING	
						SCALE 1:5		SHEET 1/1	
						PART NUMBER		JBR28 AC N 51 01A	

H G F D C B A

(12)

REV	DESCRIPTION	DATE
0 A	INITIAL RELEASE	07/06/2005

A

A A (12)

20 0

179 0

A

503 0

15 0

LAMINATE TABLE			
OP NO	MATERIAL SPECIFICATION	ORIENTATION	POSITION
1	CHECK ALL TOOLING S CORRECT AND RELEASED		
2	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER
3	EPC312FR-A170S-45-1200-NAT	45	1 PLY ALL OVER
4	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER
5	FILM BOND ADHESIVE	-	1 PLY ALL OVER
6	3 MM NOMEX HONEYCOMB CORE	-	-
7	FILM BOND ADHESIVE	-	1 PLY ALL OVER
8	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER
9	EPC312FR-A170S-45-1200-NAT	45	1 PLY ALL OVER
10	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER
11	PEEL PLY	-	-
CURE	VACUUM BAG AND CURE, 30 MINS RAMP UP TO 120C, HOLD FOR 120MINS, RAMP DOWN		

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

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E MAIL ubracing@gmail.com

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MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES ± 0.5

0 DECIMAL PLACES ±0.50

1 DECIMAL PLACES ±0.25

2 DECIMAL PLACES ±0.10

3 DECIMAL PLACES ±0.02

ANGULAR TOLERANCE 0° 15'

MATERIAL SPEC

RECTANGULAR

UNUSUAL TREATMENT

DESIGN, P, / ON

SEE LAMINATE TABLE

N/A

COMPONENT MASS, Kg

DRAWN BY

SK

SCALE

1:2

SHEET

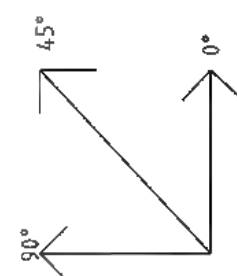
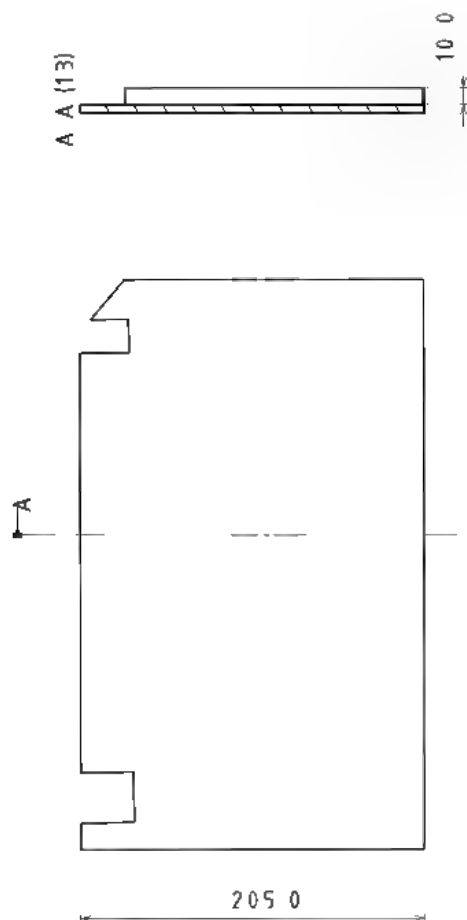
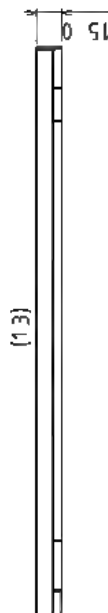
1/1

PART NUMBER


JBR28 AC N 512 01A

ACCUMULATOR FRONT WALL

H G F D C B A



LAMINATE TABLE			
OP NO	MATERIAL SPECIFICATION	ORIENTATION	POSITION
1	CHECK ALL TOOLING S CORRECT AND RELEASED		
2	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER
3	EPC312FR-A170S-45-1200-NAT	45	1 PLY ALL OVER
4	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER
5	FILM BOND ADHESIVE	-	1 PLY ALL OVER
6	3 MM NOMEX HONEYCOMB CORE	-	-
7	FILM BOND ADHESIVE	-	1 PLY ALL OVER
8	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER
9	EPC312FR-A170S-45-1200-NAT	45	1 PLY ALL OVER
10	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER
11	PEEL PLY	-	-
CURE VACUUM BAG AND CURE, 30 MINS RAMP UP TO 120C, HOLD FOR 120MINS, RAMP DOWN			

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT MASS : kg		N/A		MATERIAL SPEC		SEE LAMINATE TABLE	
A3	IF IN DOUBT - ASK	DIMENSIONS IN MILLIMETRES U O S		DRAWN BY	SK	DESIGN P. 1/1 ON		HEAT TREATMENT		N A	
	DO NOT SCALE	0 DECIMAL PLACES 1 DECIMAL PLACES 2 DECIMAL PLACES 3 DECIMAL PLACES GENERAL CONCENTRICITY 0.1 TIR ANGULAR TOLERANCE 0.25°				SURFACE TREATMENT		N A			
TEL: +44 (0)121 414 4218		E MAIL: ubracing@gmail.com		SCALE		1:3				SHEET 1/1	
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REV

DESCRIPTION

DATE

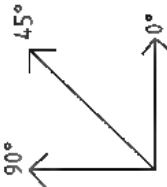
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DATE

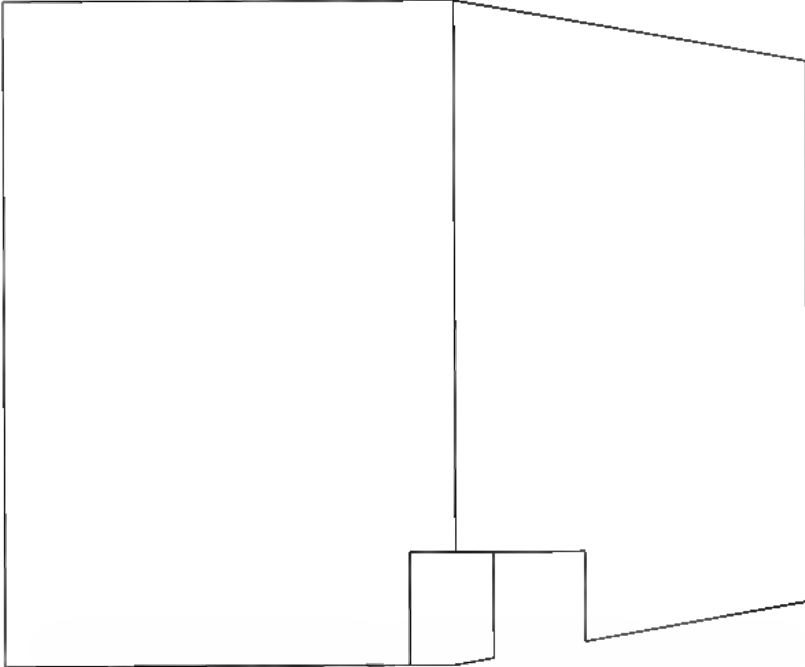
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INITIAL RELEASE

07 06 2025



529 0

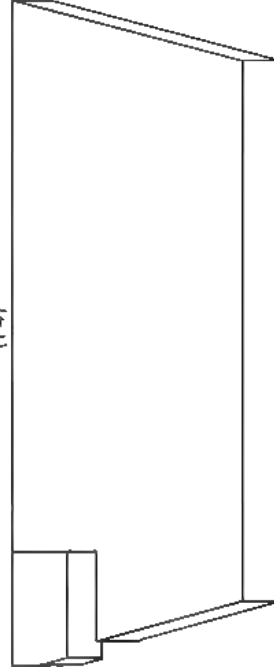


638 7

LAMINATE TABLE

OP NO	MATERIAL SPECIFICATION	ORIENTATION	POSIT ON
1	CHECK ALL TOOLING IS CORRECT AND RELEASED		
2	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER
3	DEBULK FOR 60 MINS		
4	EPC312FR-A170S-45-1200-NAT	45	1 PLY ALL OVER
6	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER
7	DEBULK FOR 60 MINS		
8	FILM BOND ADHESIVE	-	1 PLY ALL OVER
9	3 MM NOMEX HONEYCOMB CORE	-	-
10	FILM BOND ADHESIVE	-	1 PLY ALL OVER
11	EPC312FR A170S 45 1200 NAT	90	1 PLY ALL OVER
12	DEBULK FOR 60 MINS		
13	EPC312FR-A170S-45-1200-NAT	45	1 PLY ALL OVER
14	EPC312FR-A170S-45-1200-NAT	90	1 PLY ALL OVER
15	PEEL PLY	-	-
CURE	VACUUM BAG AND CURE, 30 MINS RAMP UP TO 120C, HOLD FOR 120MINS, RAMP DOWN		

(14)



241 1

UBRacing

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A3

DO NOT SCALE

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REMOVE DIMENSIONS AND SHARP EDGES

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MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES TO 0.5

0 DECIMAL PLACES

1 DECIMAL PLACES

2 DECIMAL PLACES

3 DECIMAL PLACES

GENERAL TOLERANCE

0 DECIMAL PLACES

1 DECIMAL PLACES

2 DECIMAL PLACES

3 DECIMAL PLACES

GENERAL TOLERANCE

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GENERAL TOLERANCE

H

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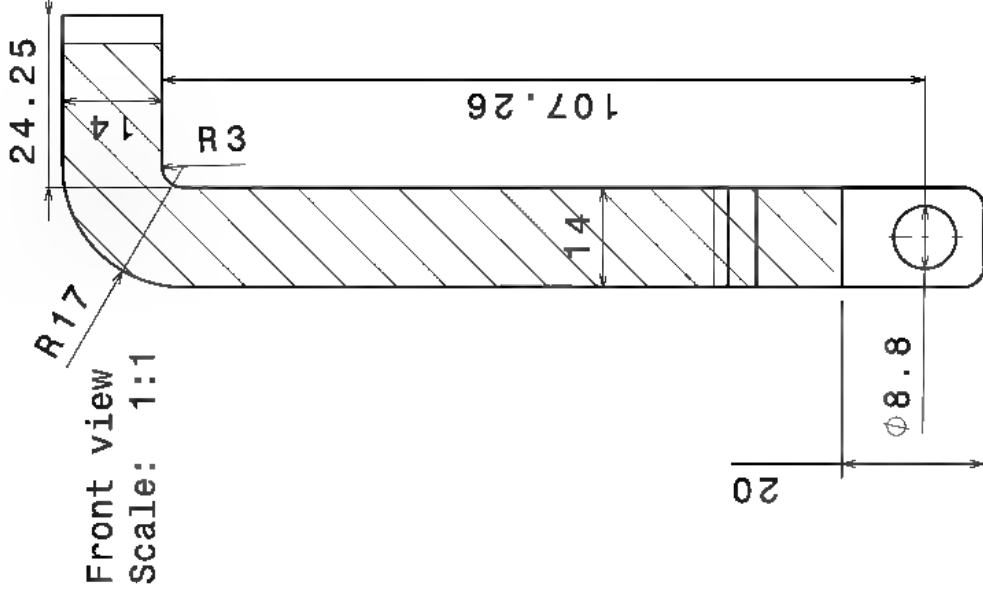
A

B

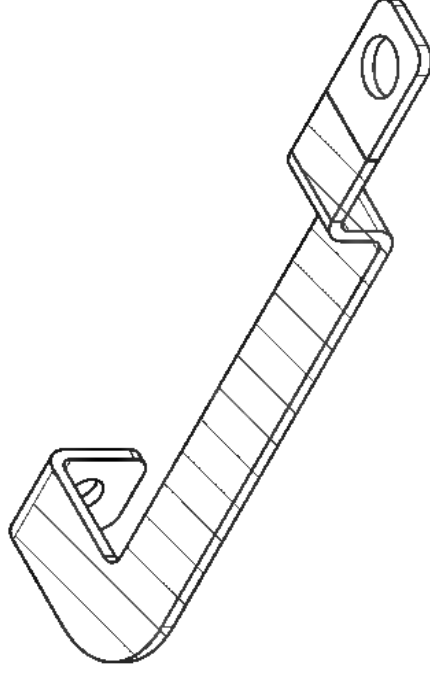
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D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	GA	08/11/2024



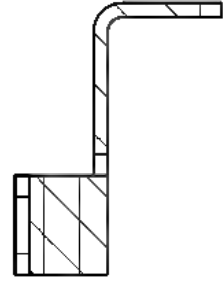
Right view
Scale: 1:1



Isometric view
Scale: 1:1

NOTES:

- 1 - MACHINE TO CAD
- 2 - SHADED AREA TO BE COATED



Bottom view
Scale: 1:1

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.012		A. UMENIUM	
IF IN DOUBT	ASK	DIMENSIONS IN MILLIMETRES ± 0.8		DRAWN BY		JDH		N A	
A4	DO NOT SCALE	0 DECIMAL PLACES ±0.80						N A	
		1 DECIMAL PLACES ±0.25						N A	
		2 DECIMAL PLACES ±0.10						N A	
		3 DECIMAL PLACES ±0.02						N A	
		GENERAL CONCENTRICITY 0.1 TRA						N A	
		ANGULAR TOLERANCE ±0.25						N A	
TEL	+44 (0)121 414 4218	REMOVE BURRS AND SHARP EDGES						BAT NEGATIVE BUSBAR	
E-MAIL	ubracings@bt.com	This drawing and the copyright herein are the property of UBRacing. It is drawn to the best of our knowledge and is based on the express condition that it is not to be used for any other purpose without the written consent of UBRacing.							
				SCALE		1:1		SHEET PART	
								1/1 NUMBER	
								UBR28 AC.N	
								911 01A	

D

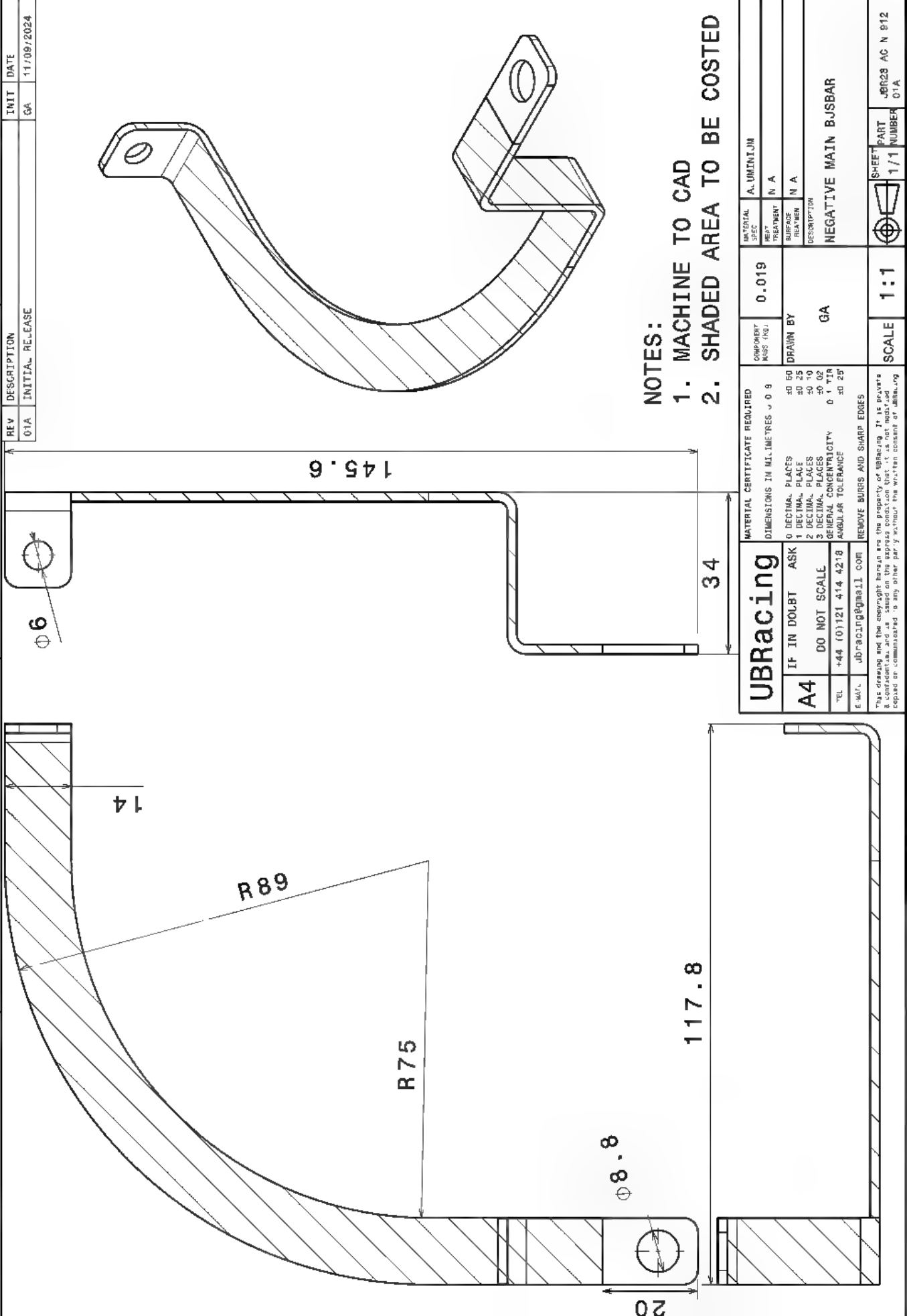
A

A

B

C

D



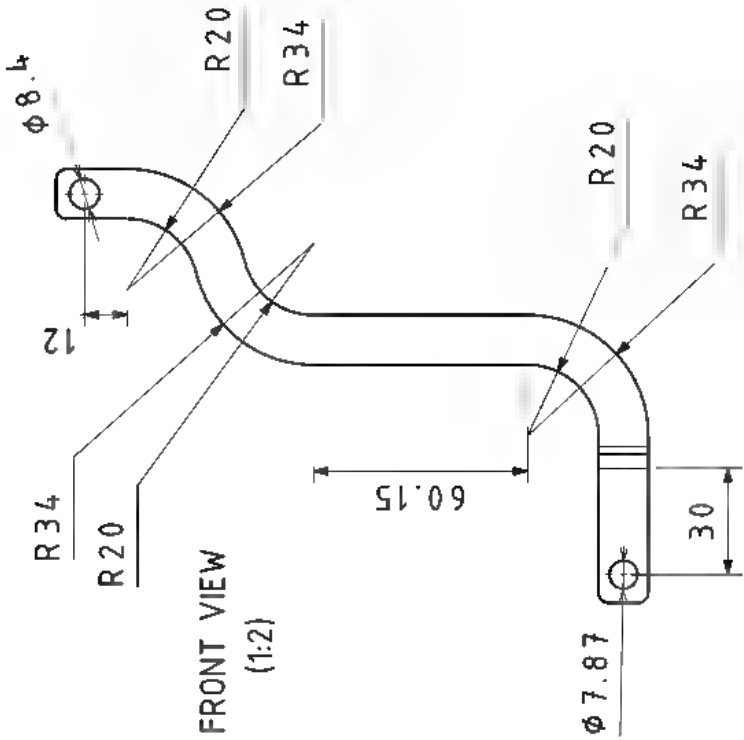
NOTES:

- 1. MACHINE TO CAD
- 2. SHADED AREA TO BE COSTED

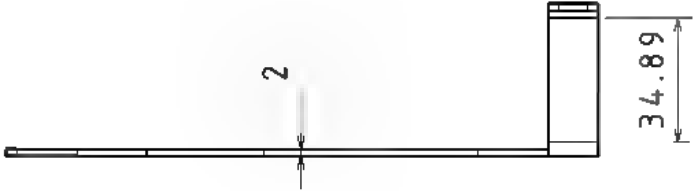
UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT AND TAG		0.019		A. UMINIUM	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES ± 0.8		DRAWN BY		GA		N A	
A4		DO NOT SCALE		GENERAL TOLERANCE		± 0.25		N A	
TEL +44 (0)121 414 4218		ANGULAR TOLERANCE		REMOVE BURRS AND SHARP EDGES		± 0.25		N A	
E-MAIL ubracing@gmail.com		REMOVE BURRS AND SHARP EDGES		SCALE		1:1		NEGATIVE MAIN BJSBAR	
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A

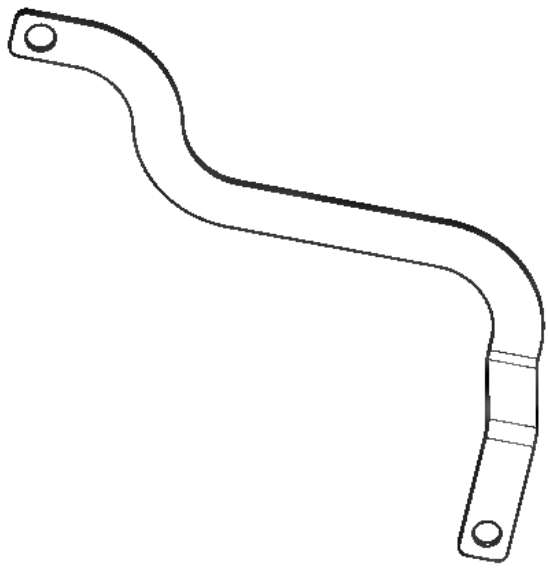
D



FRONT VIEW
(1:2)



SIDE VIEW
(1:2)



ISOMETRIC VIEW
(1:2)

- NOTES:
- 1 - MACHINE TO CAD
 - 2 - PART TO BE COATED UP TO 10 mm FROM CONTACTOR HOLES EDGE

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	GA	20/02/2025

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.0205		ALUMINIUM	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES ± 0.8		DRAWN BY		N/A		N/A	
A4		0 DECIMAL PLACES ±0.50		GA		N/A		N/A	
DO NOT SCALE		1 DECIMAL PLACES ±0.25							
TEL +44 (0)121 414 4218		2 DECIMAL PLACES ±0.10							
E-MAIL ubracing@gmail.com		3 DECIMAL PLACES ±0.02							
		GENERAL CONCENTRICITY 0.1 TIR							
		ANGULAR TOLERANCE ±0.25°							
		REMOVE BURRS AND SHARP EDGES							
		FUSE BUSBAR							
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H G L W C D B A

REV	DESCRIPTION	INT	DATE
0/A	INITIAL RELEASE	GA	5.11.24

(117.7)



\square 0.25 A

NOTES:

1. ALL UNDIMENSIONED SURFACES \square 0.2 A (B-B) $\text{\textcircled{M}}$
2. ALL EDGE BREAK CHAMFER 1 X 45°
3. MACHINE ALL UNDIMENSIONED SURFACES TO CAD DATA

DRILL 3.3

TAP M4X0.7 THRU

TYP.2

\square 0.2 A (B-B) $\text{\textcircled{M}}$

ϕ 8.8 THRU

TYP.4

\square 0.2 A (B-B) $\text{\textcircled{M}}$

R29

\square 0.2 A (B-B) $\text{\textcircled{M}}$

R10

TYP.2

\square 0.2 A (B-B) $\text{\textcircled{M}}$

ϕ 8 H12 THRU

TYP.2

\square 0.25 A

B

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

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MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES 0.0 9	
0 DECIMAL PLACES	±0.50
1 DECIMAL PLACES	±0.25
2 DECIMAL PLACES	±0.10
3 DECIMAL PLACES	±0.02
GENERAL CONCENTRICITY	0 TIR
ANGULAR TOLERANCE	±0.25°

REMOVE BURRS AND SHARP EDGES

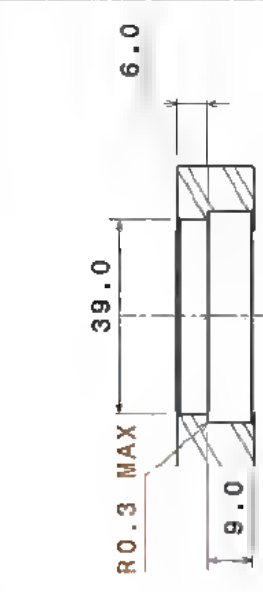
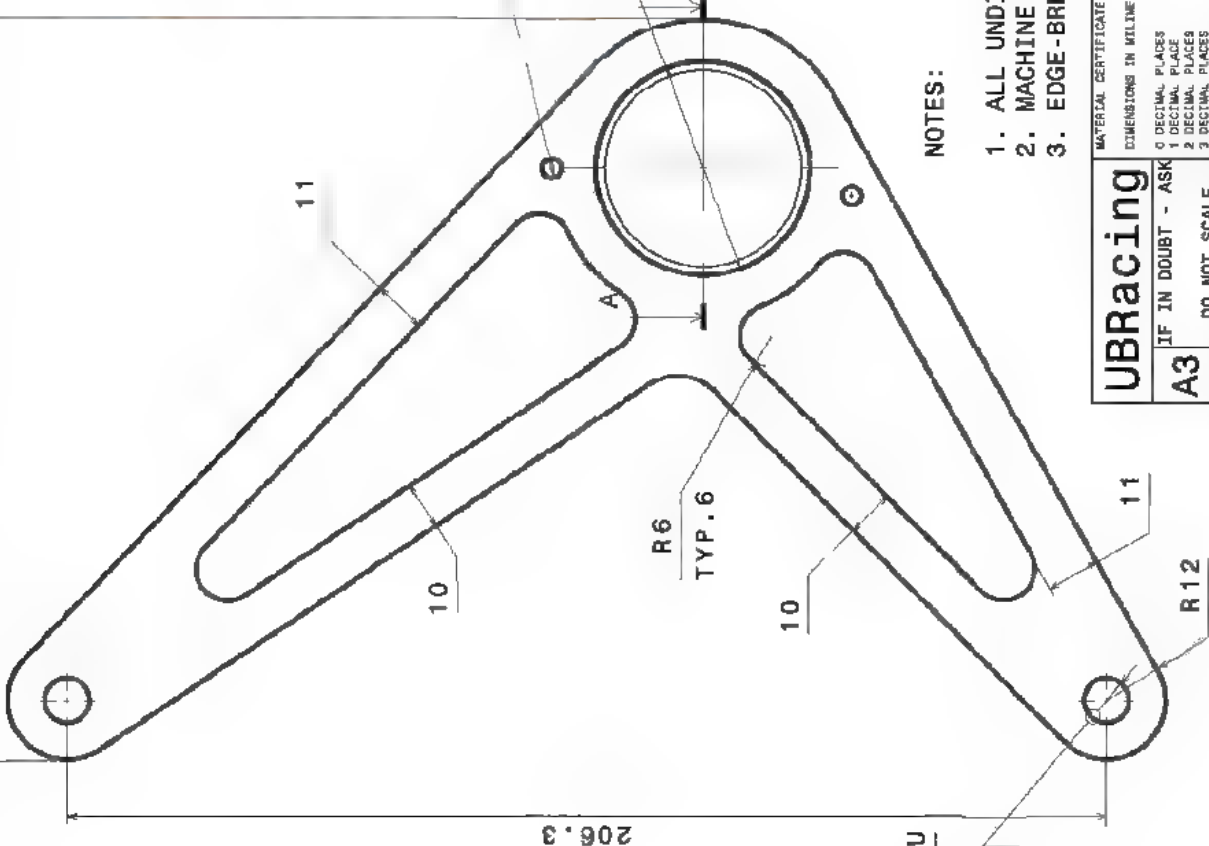
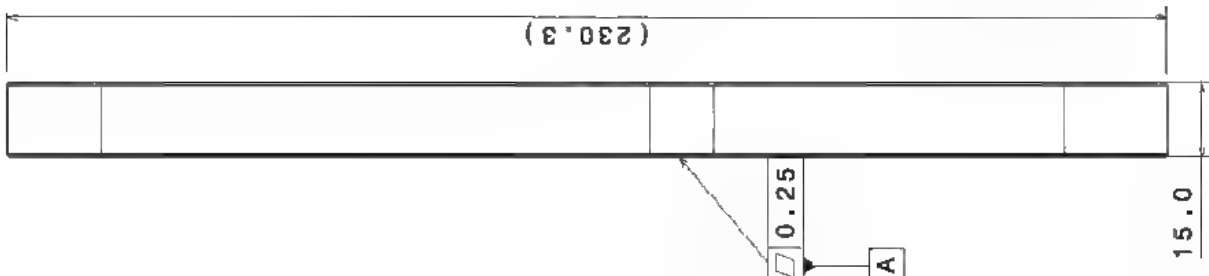
COMPONENT	
0.268	0.268
DRAWN BY	
JALW	
DESCRIPTION	
MOTOR HANGER	

MATERIAL	
ALUMINIUM 7075 T6	ALUMINIUM 7075 T6
HEAT TREATMENT	
N/A	
SURFACE TREATMENT	
SULFURIC ACID ANODISED	

SHEET	
1/1	1/1

PART	
JBR28_PT_112_01A	JBR28_PT_112_01A

H G L W C D B A



Section view A-A


DRILL 3.3
TAP M4X0.7 THRU
TYP.2

Ø42 K6
Ø0.25 A (B-B) (M)

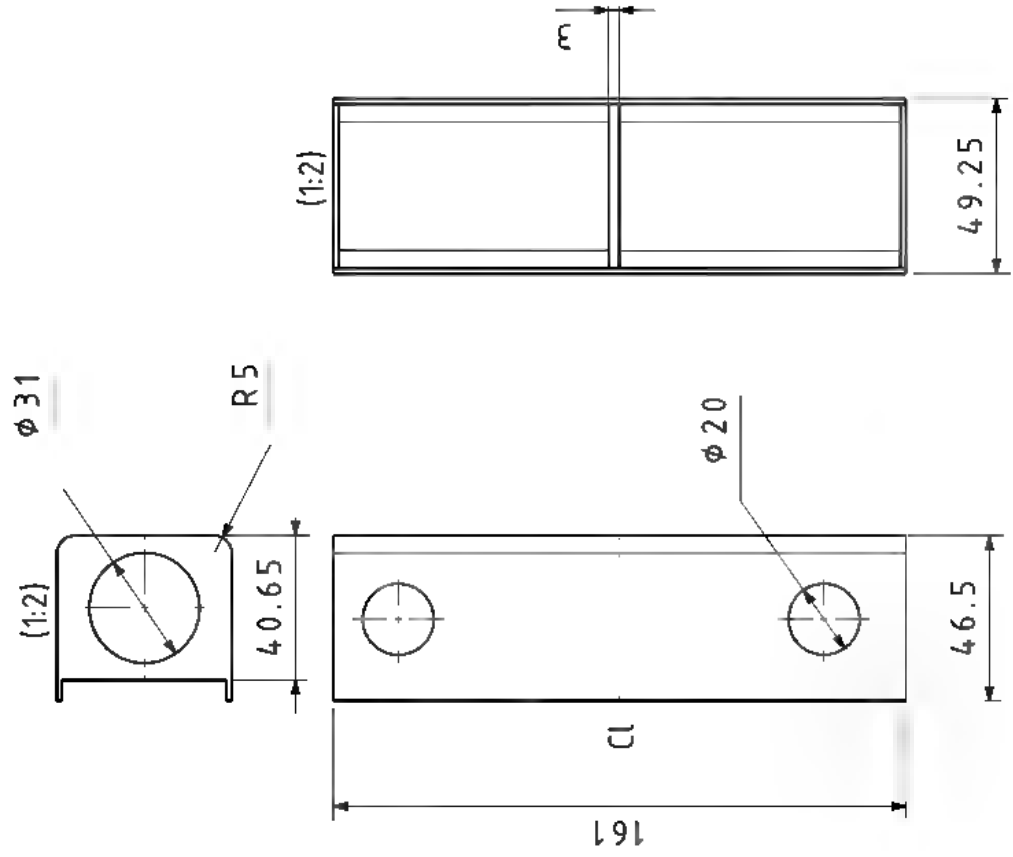
Ø8 H12 THRU
TYP.2
Ø0.25 A

NOTES:

1. ALL UNDIMENSIONED SURFACES TO 0.2 A (B-B) (M)
2. MACHINE ALL UNDIMENSIONED SURFACES TO CAD DATA
3. EDGE-BREAK CHAMFER 0.5 X 45°

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES U.O.B		MASS (KG)		SPEC	
A3	DO NOT SCALE	0 DECIMAL PLACES ±0.50		DRAWN BY	0.327	HEAT TREAT	
		1 DECIMAL PLACES ±0.25				N/A	
		2 DECIMAL PLACES ±0.10				SURFACE TREATMENT	
		3 DECIMAL PLACES ±0.02				SULFURIC ACID ANODISED	
		GENERAL CONCENTRICITY 0.1 TIR		JALW		DESCRIPTION	
		ANGULAR TOLERANCE 50/25				PROP SHAFT HANGER	
TEL	+44 (0)121 414 4218	REMOVE BURRS AND SHARP EDGES		SCALE 1:1			
E MAIL	Ubracing@gmail.com					SHEET 1/1	
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						JBR28_P1_A_122 DIA	

A B C D

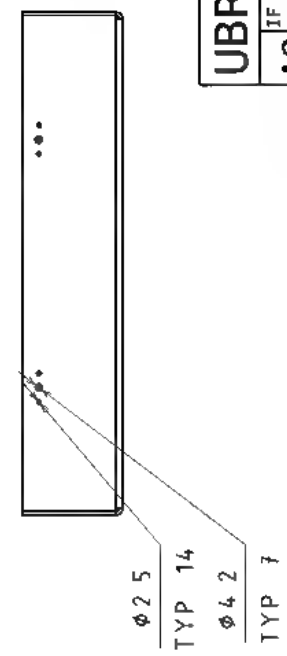
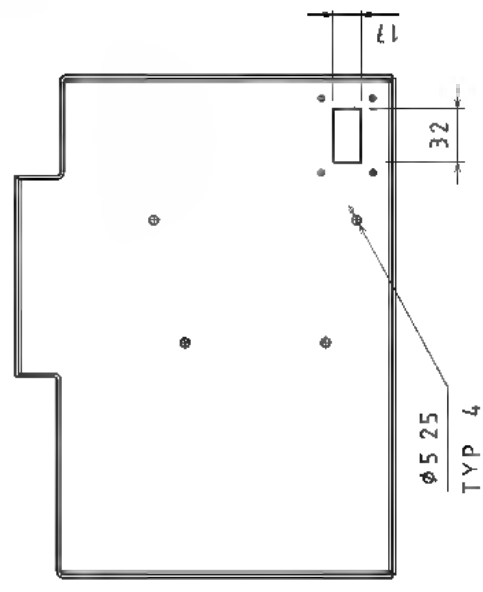
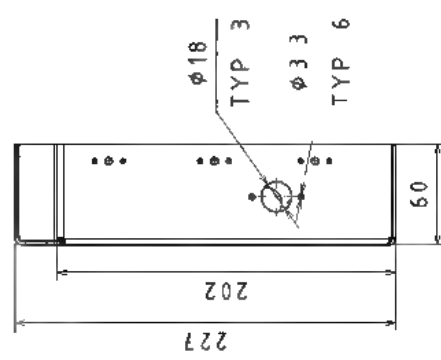
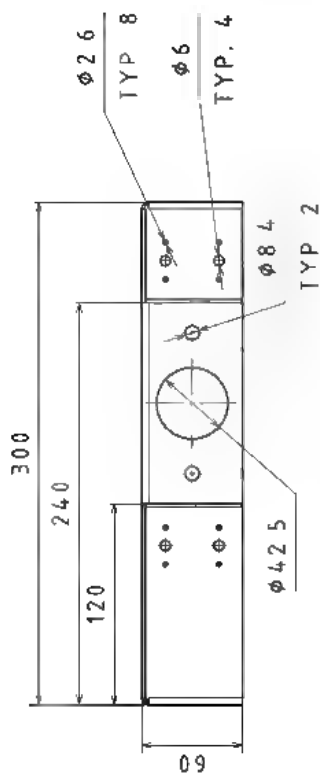


NOTES:
1. SYMMETRICAL ABOUT CENTRELINE (CI)

UBRacing		COMPONENT NO. 01154		MATERIAL SPEC.	
IF IN DOUBT ASK	ASK	DRAWN BY		DESIGN	ALUMINIUM 5251
A4	DO NOT SCALE	SCB		TREATMENT	N A
TEL +44 (0)121 414 4218	ubracing@gmail.com	SCB		SURFACE FINISH	N A
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REMOVE BURS AND SHARP EDGES		1:2		INLET / OUTLET BOX	
SHEET 1/1		PART NUMBER		JBR28_PT_N_223_01A	

D A

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	QA	08 0 25



NOTES
 1 LASERCUT TO CAD
 2 ALL BENDS 90 DEGREES

PROPERTY	VALUE
SHEET METAL THICKNESS	2 MM
BEND RADIUS	2 MM

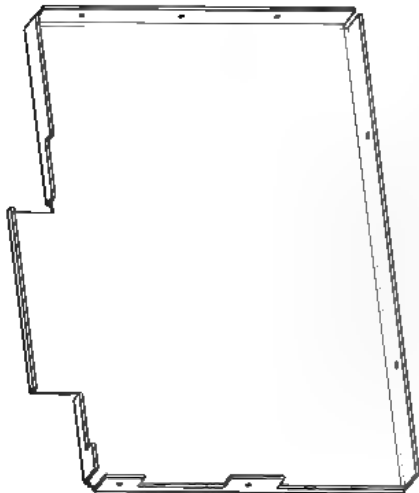
UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK	0.000	DIMENSIONS IN MILLIMETRES ± 0.8	MASS, kg	0.000	ALUMINIUM	0.000	ALUMINIUM
A3	0.000	0 DECIMAL PLACES ±0.50	0.000	0.000	0.000	0.000	0.000
DO NOT SCALE	0.000	1 DECIMAL PLACES ±0.25	0.000	0.000	0.000	0.000	0.000
TEL +44 (0)121 414 4218	0.000	2 DECIMAL PLACES ±0.10	0.000	0.000	0.000	0.000	0.000
E MAIL jbracing@qmail.com	0.000	3 DECIMAL PLACES ±0.05	0.000	0.000	0.000	0.000	0.000
This drawing and the copyright herein are the property of UBRacing. It is not to be reproduced or used in any way without the written consent of UBRacing.		GENERAL TOLERANCE 0.10		DRAWN BY		SURFACE TREATMENT	
		REMOVE BURRS AND SHARP EDGES		KC		N A	
						N A	
						HV BOX	
						1/1	
						JBR28 PT N 301 B A	

H G F E D C B A

REV	DESCRIPTION	INT	DATE
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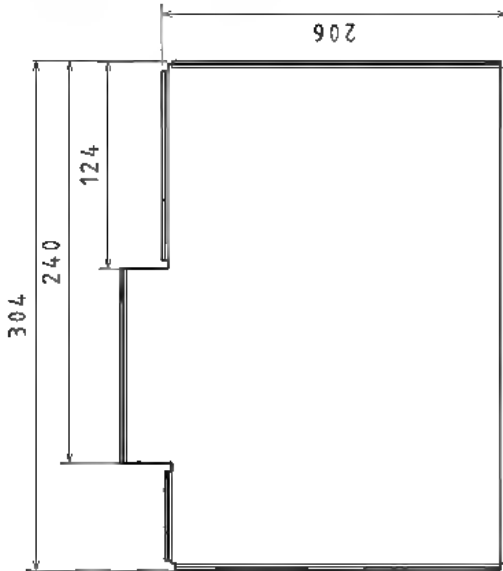
SHEET METAL PARAMETERS

PROPERTY	VALUE
THICKNESS	2 MM
BEND RADIIJS	2 MM

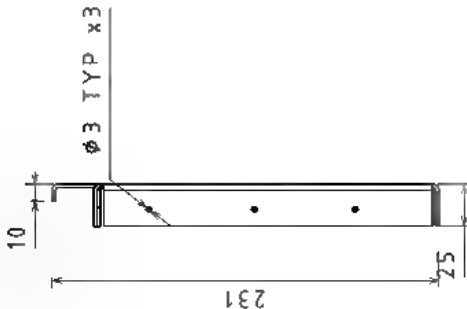
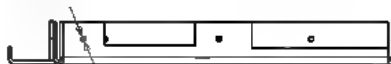


ISOMETRIC VIEW (13)

Ø 4 2 TYP x2



Ø 3 TYP x2



NOTES

- 1 LAZERCUT TO CAD
- 2 ALL BENDS TO 90 DEGREES

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL ubracing@gmail.com

REMOVE BUBBLES AND SHARP EDGES

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consent of UBRacing.

MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES u o s

0 DECIMAL PLACES

1 DECIMAL PLACES

2 DECIMAL PLACES

GENERAL CONCENTRICITY

ANGULAR TOLERANCE

+0.50

+0.25

+0.10

+0.05

+0.02

+0.01

MATERIAL

ALUMINIUM

0.3337

COMPONENT

MASS .kg

DRAWN BY

SCB

SCALE

1:3

SHEET

1/1

PART

NUMBER

UBR28_PT_N-

303_01A

A

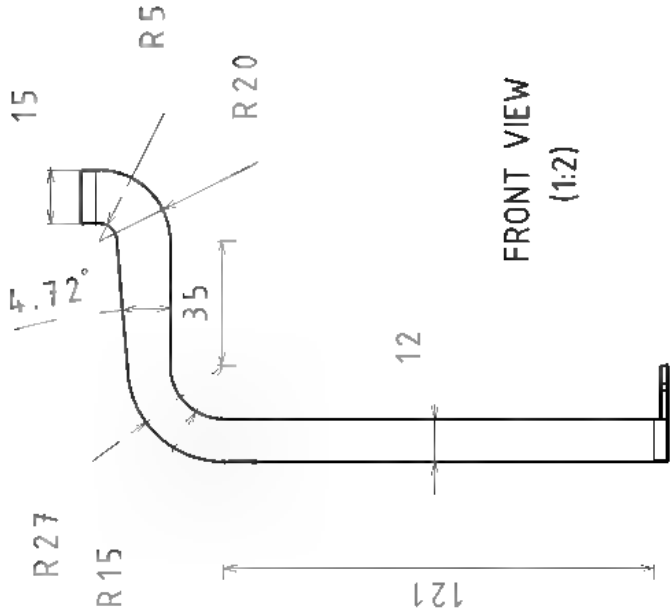
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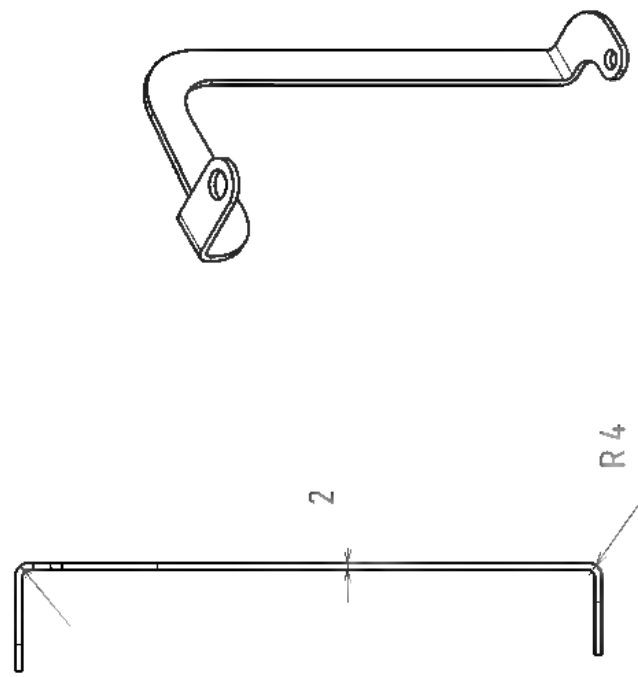
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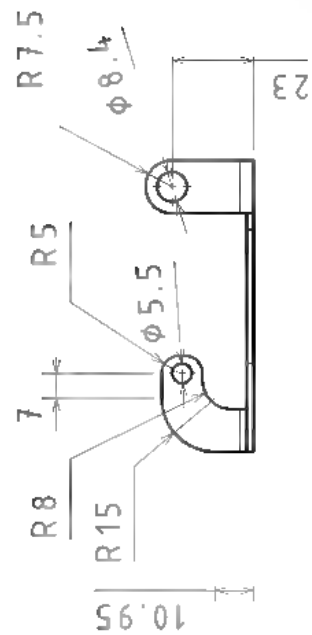
REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	GA	13/02/2025



FRONT VIEW
(1:2)

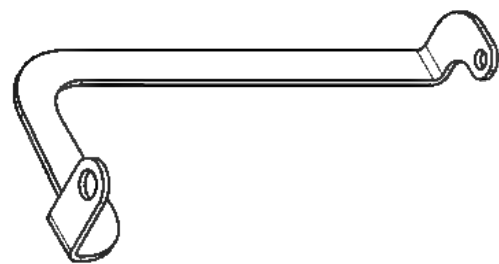


SIDE VIEW
(1:2)



TOP VIEW
(1:2)

ISOMETRIC VIEW
(2:1)



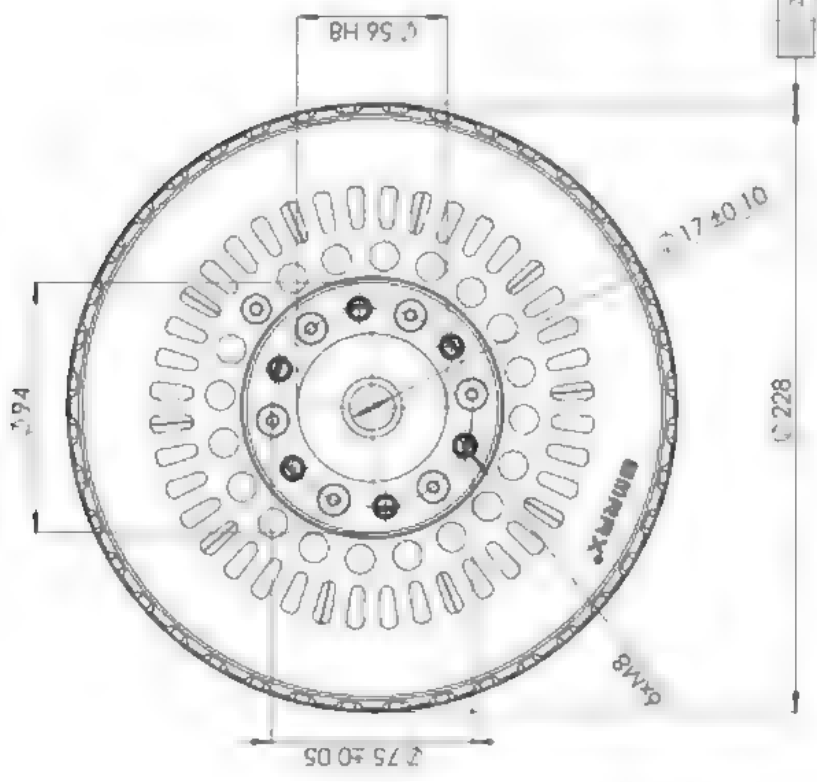
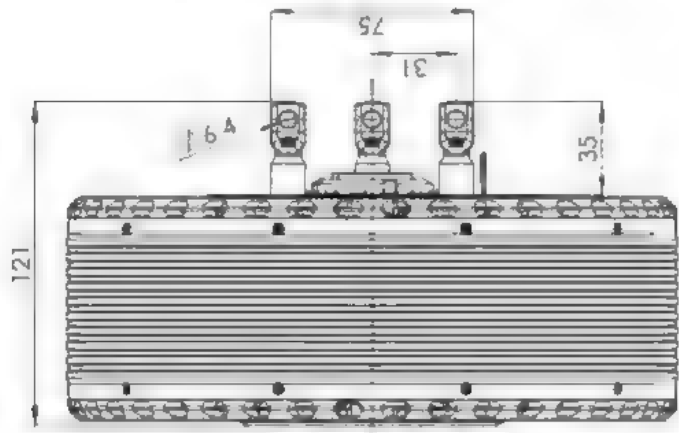
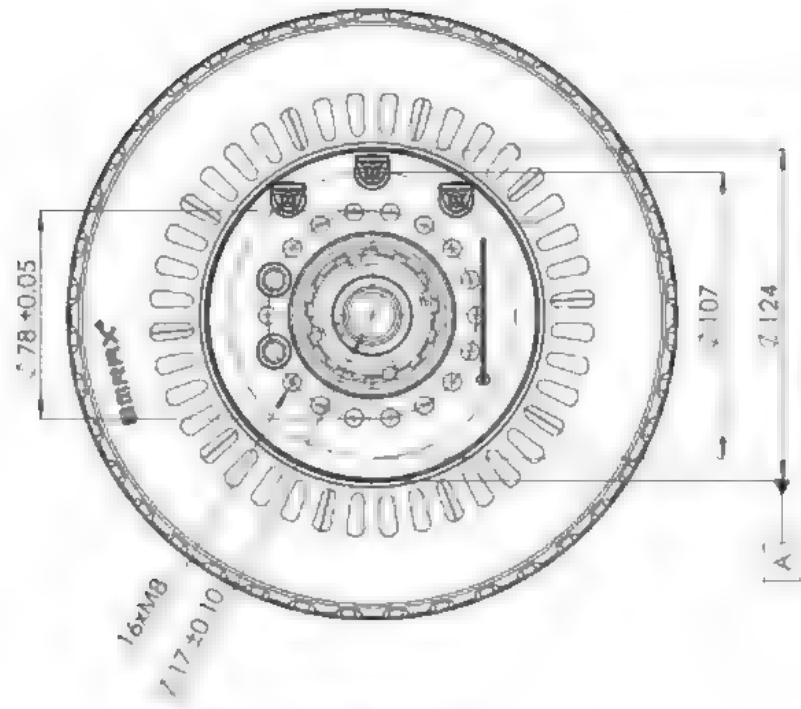
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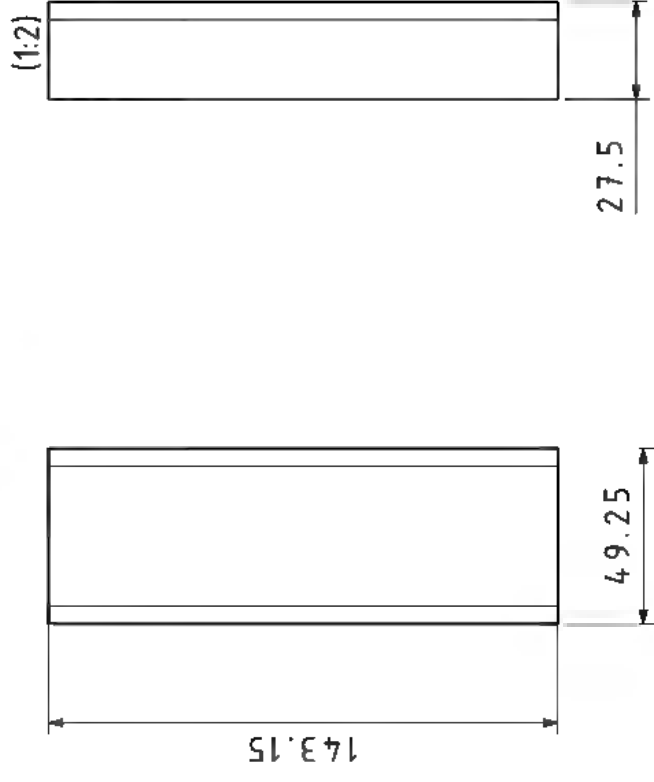
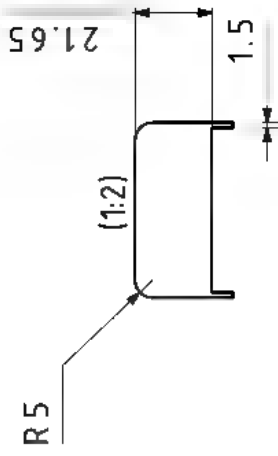
- 1 - MACHINE TO CAD
- 2 - PART TO BE COATED UP TO 10 mm FROM CONTACTOR HOLES EDGE

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
		DIMENSIONS IN MILLIMETRES 0.05		NO. 1		A. ALUMINIUM	
IF IN DOUBT	ASK	0 DECIMAL PLACES	±0.50	DRAWN BY		SURFACE TREATMENT	
A4	DO NOT SCALE	1 DECIMAL PLACES	±0.25	GA		SURFACE TREATMENT	
TEL	+44 (0)121 414 4218	2 DECIMAL PLACES	±0.10			SURFACE TREATMENT	
E-MAIL	ubracings@bt.com	3 DECIMAL PLACES	±0.02			SURFACE TREATMENT	
		GENERAL CONCENTRICITY 0.1 TIR				DESCRIPTION	
		ANGULAR TOLERANCE ±0.25°				HVD POSITIVE BUSBAR	
		REMOVE BURRS AND SHARP EDGES					
		This drawing and the copyright herein are the property of UBRacing. It is drawn to the best of our knowledge and is based on the information provided to us. It is not to be used for any other purpose without the written consent of UBRacing.		SCALE		1:1	
						SHEET PART	
						1/1 NUMBER	
						JBR28 PT N 373	

A

D

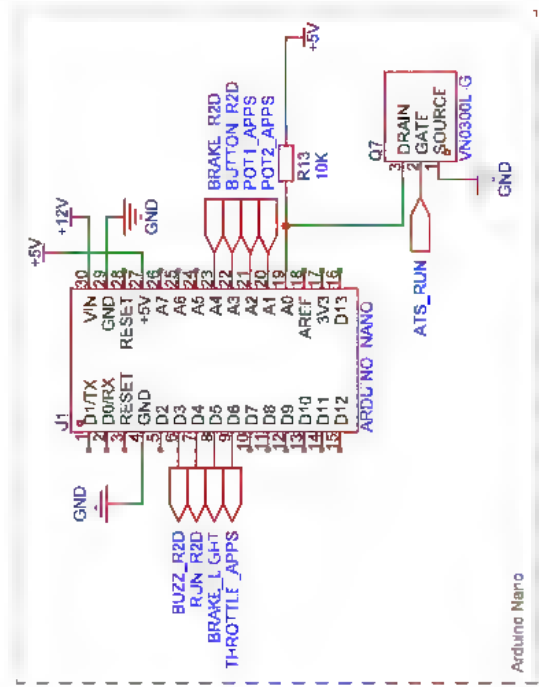
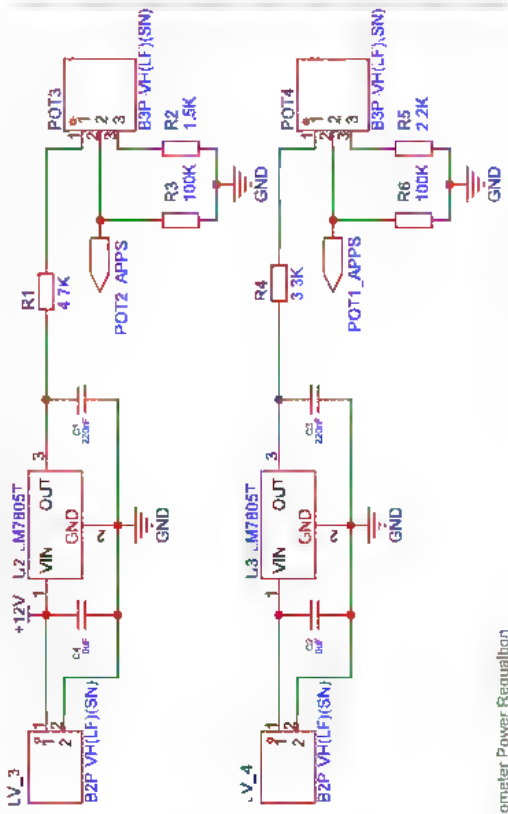
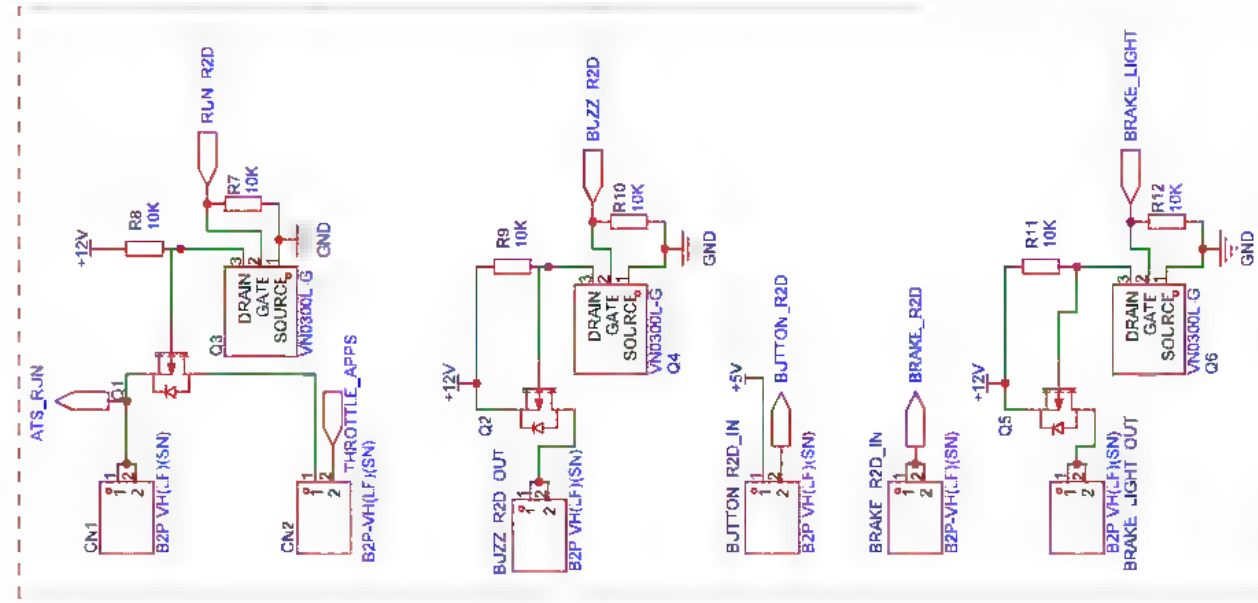





UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT ASK	DIMENSIONS IN MILLIMETRES ± 0.8	NO. 100	0 0659	TEST	A. ALUMINIUM 5251		
A4	0 DO NOT SCALE	0 DECIMAL PLACES ± 0.25	DRAWN BY	TREATMENT	N A		
TEL	+44 (0)121 414 4218	1 DECIMAL PLACES ± 0.10	SCB	SURFACE FINISH	N A		
E-MAIL	ubracings@gmail.com	2 DECIMAL PLACES ± 0.02			DESCRIPTION		
		GENERAL CONCENTRICITY 0.1 TIR			TRANSFER BOX		
		ANGULAR TOLERANCE $\pm 0.25^\circ$					
		REMOVE BURRS AND SHARP EDGES					
		This drawing and the copyright herein are the property of UBRacing. It is hereby acknowledged and is based on the express condition that it is not reproduced, copied or communicated to any other party without the written consent of UBRacing.					
			SCALE	1:2	SHEET	PART	JBR28_PT N_224
					1/1	NUMBER	01A

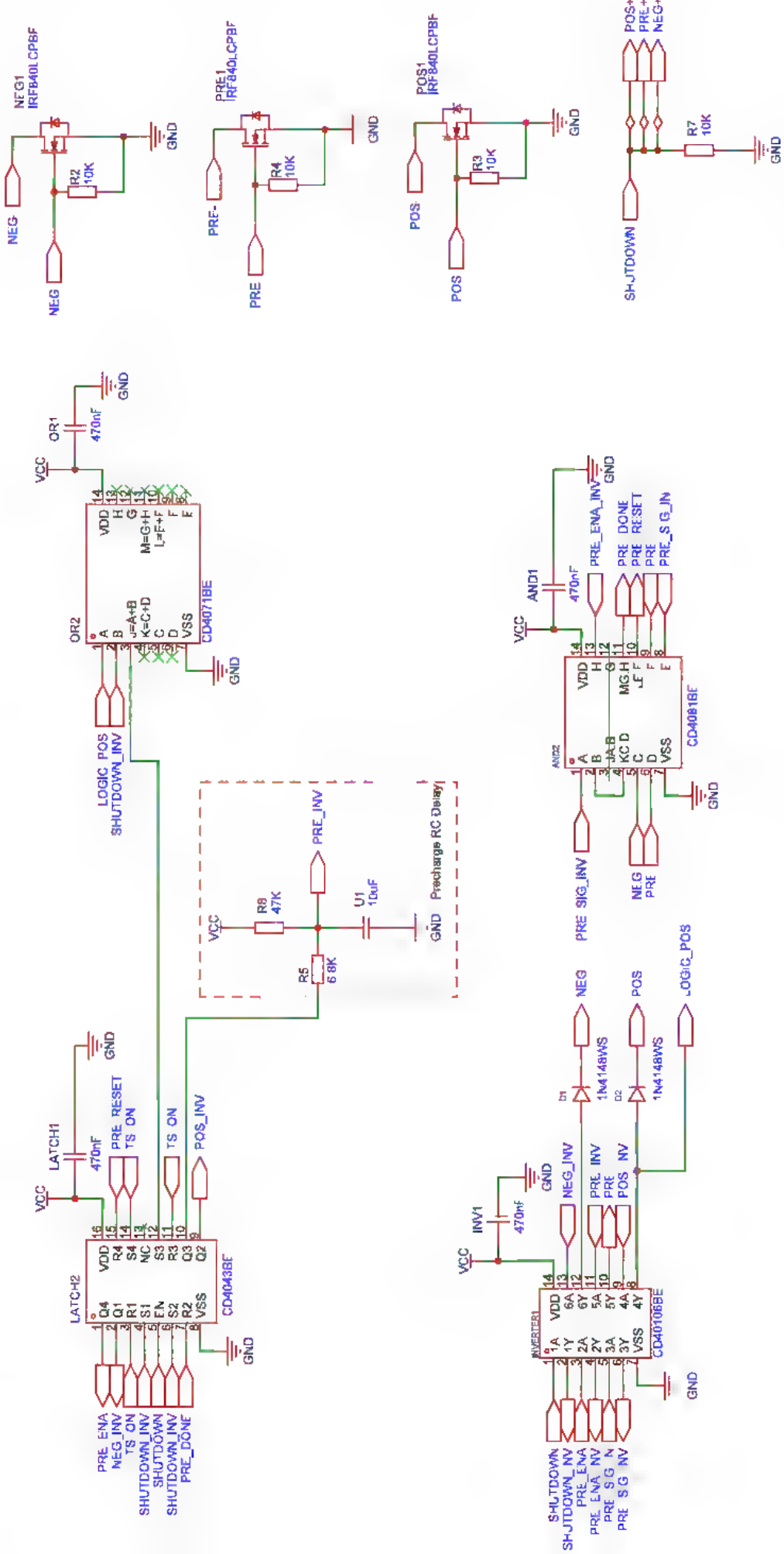
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D



Schematic	APPS, R2D, Brake Light			Create at	2025-04-28
				Update at	2025-06-12
				Page	04A of 1
Drawn	Olek	UBR28_CO_APPS_R2D_BRK_LIGHT_02B			
	Matuszkaewicz				
Reviewed					
		Version	Size	Page 1 Total 1	
		03A			
					

Signals I/O

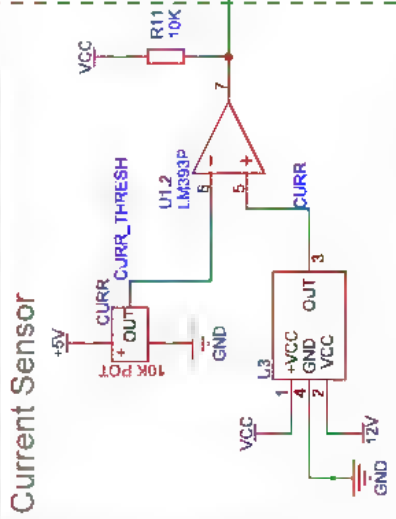


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Page	Logic				Create Date	2025-03-21	
Drawn					JACOB H	Part Number	JLPCB-002
Reviewed							
				ATS			
		VER	SIZE	PAGE	1	OF 2	
		V0 1	A4	EasyEDA.com			
							

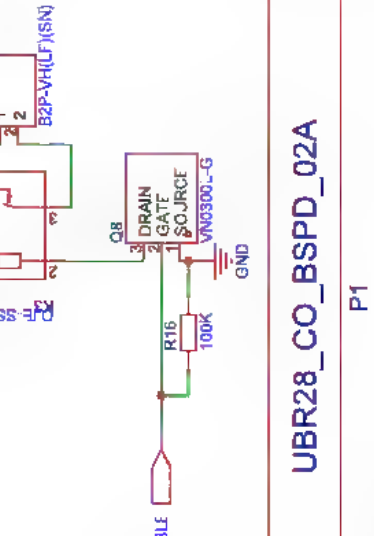
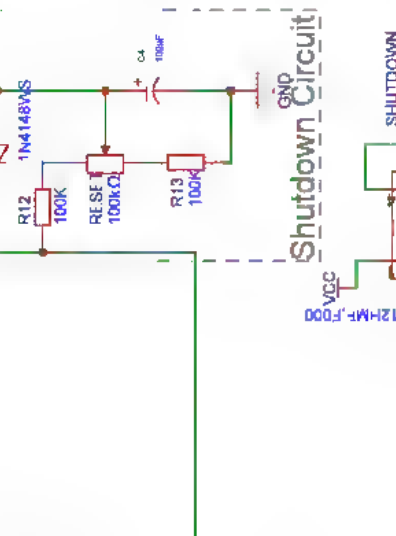
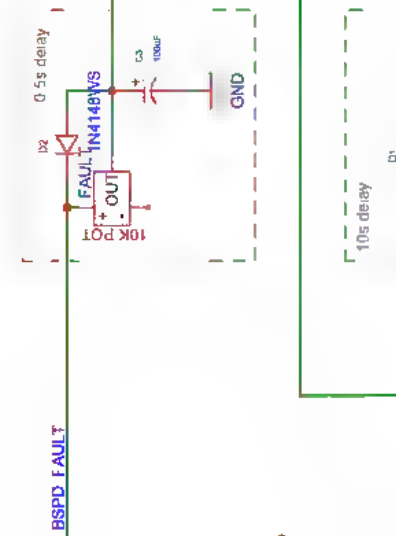
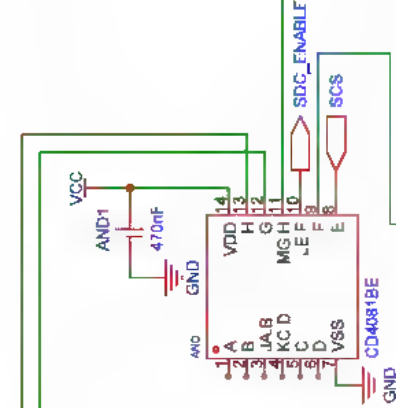
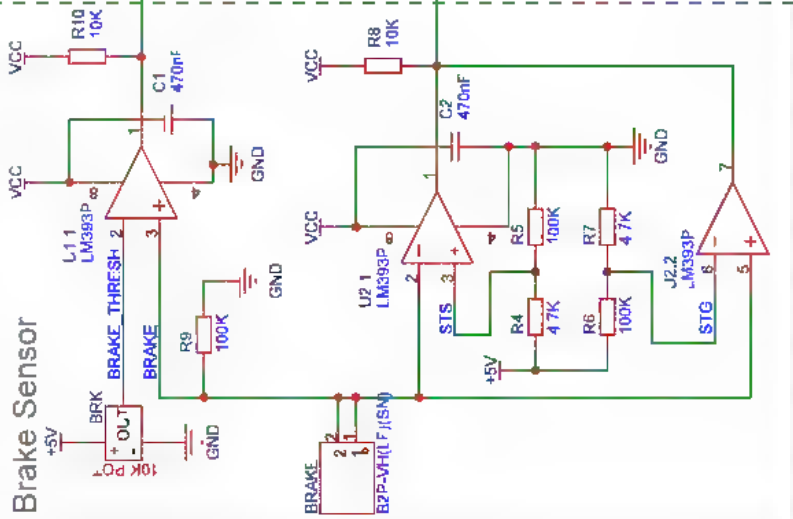




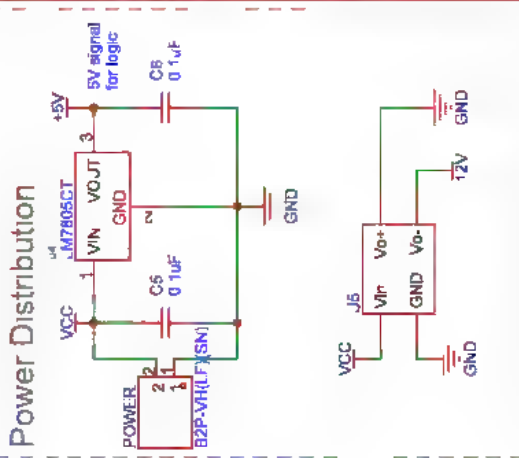
Current Sensor




Brake Sensor

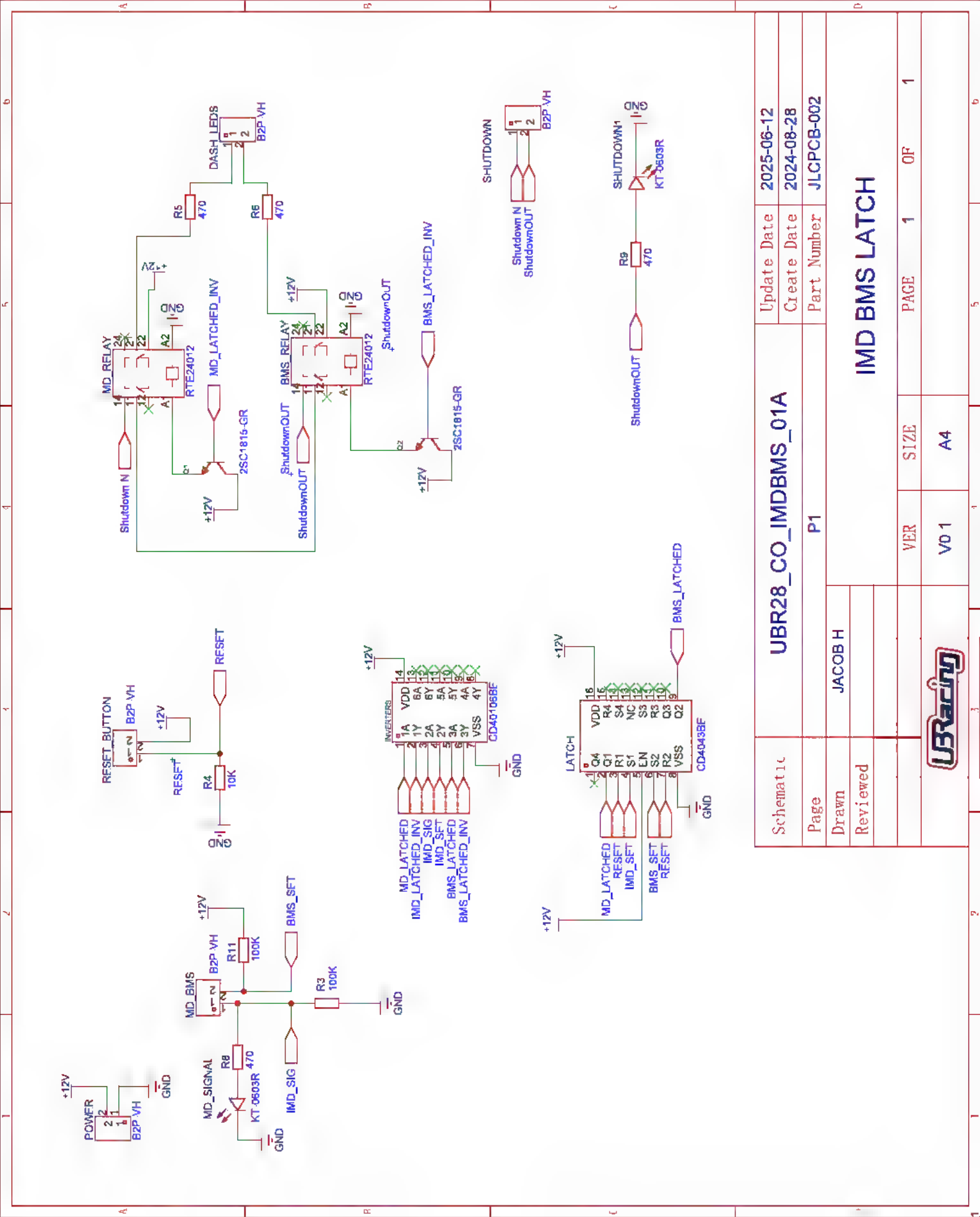


Power Distribution



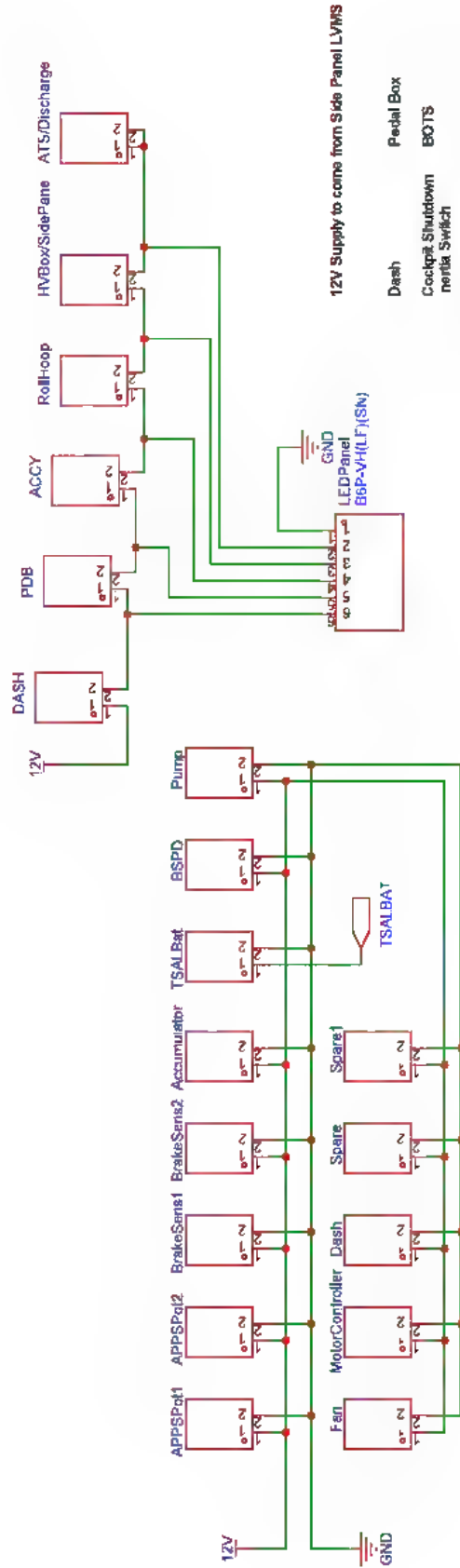
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Page	P1				Create Date	2025-01-12	
Drawn	CHRISTELLA S				BSPD	Part Number	
Reviewed	JACOB H						
		VER	SIZE	PAGE	1	OF	1
		V1 0	A4				





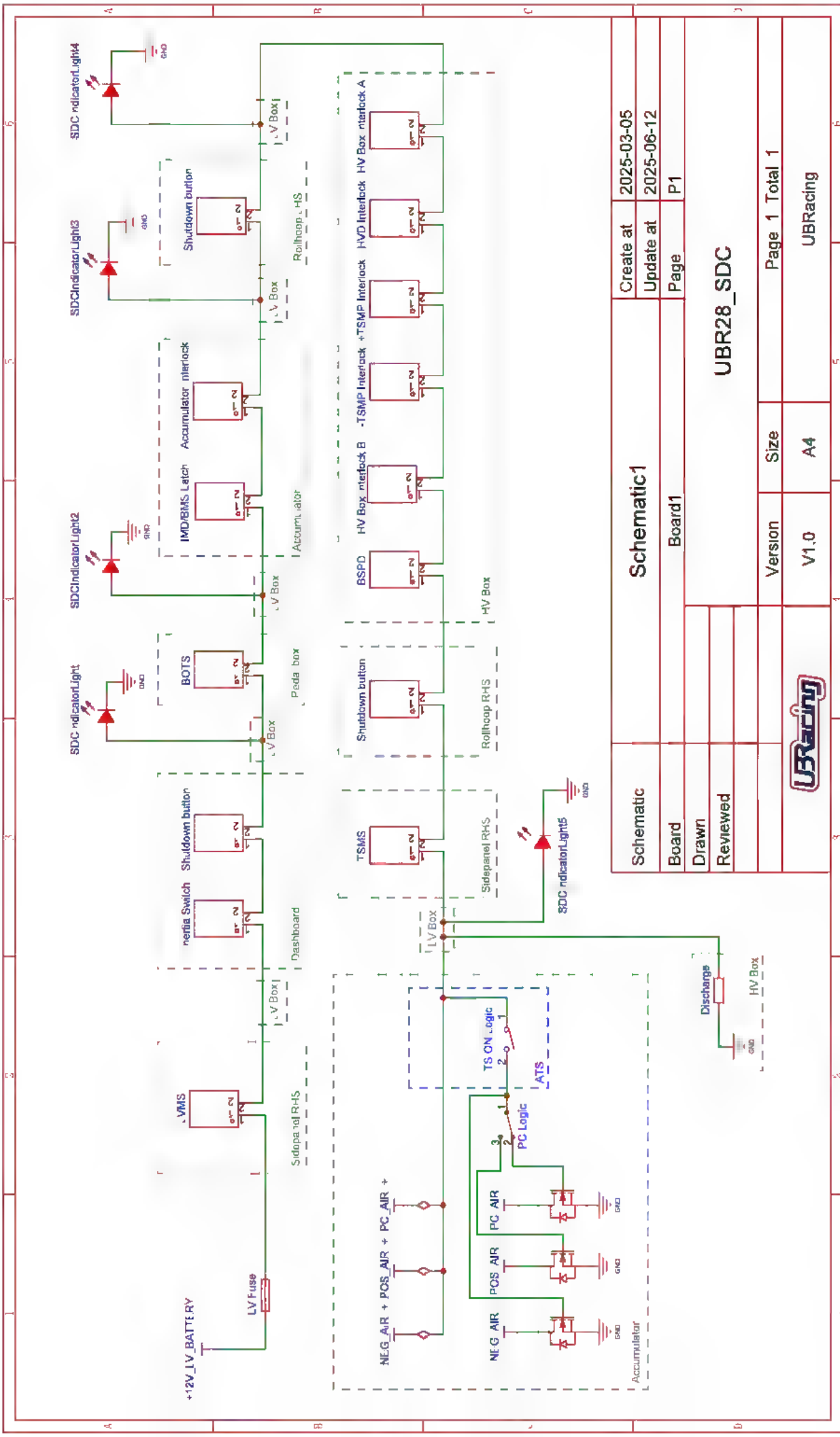
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				IMD BMS LATCH					
Page				VER	SIZE	PAGE	1	OF	1
Drawn	JACOB H								
Reviewed									
									






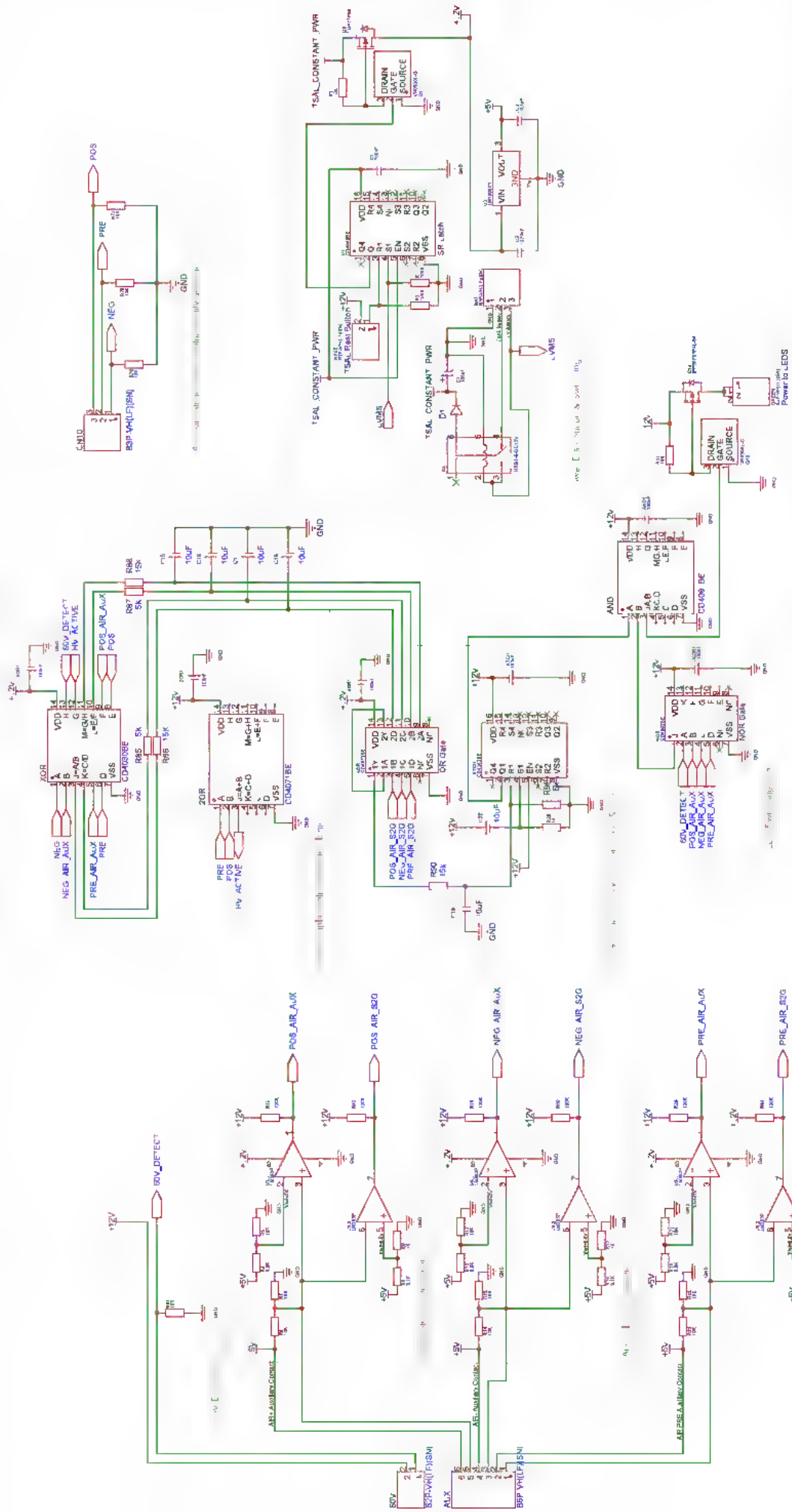
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Board	Board1		Update at	2025-06-12
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Reviewed			POWER DISTRIBUTION	
Version		Size	Page 1 Total 1	
V1.0		A4		



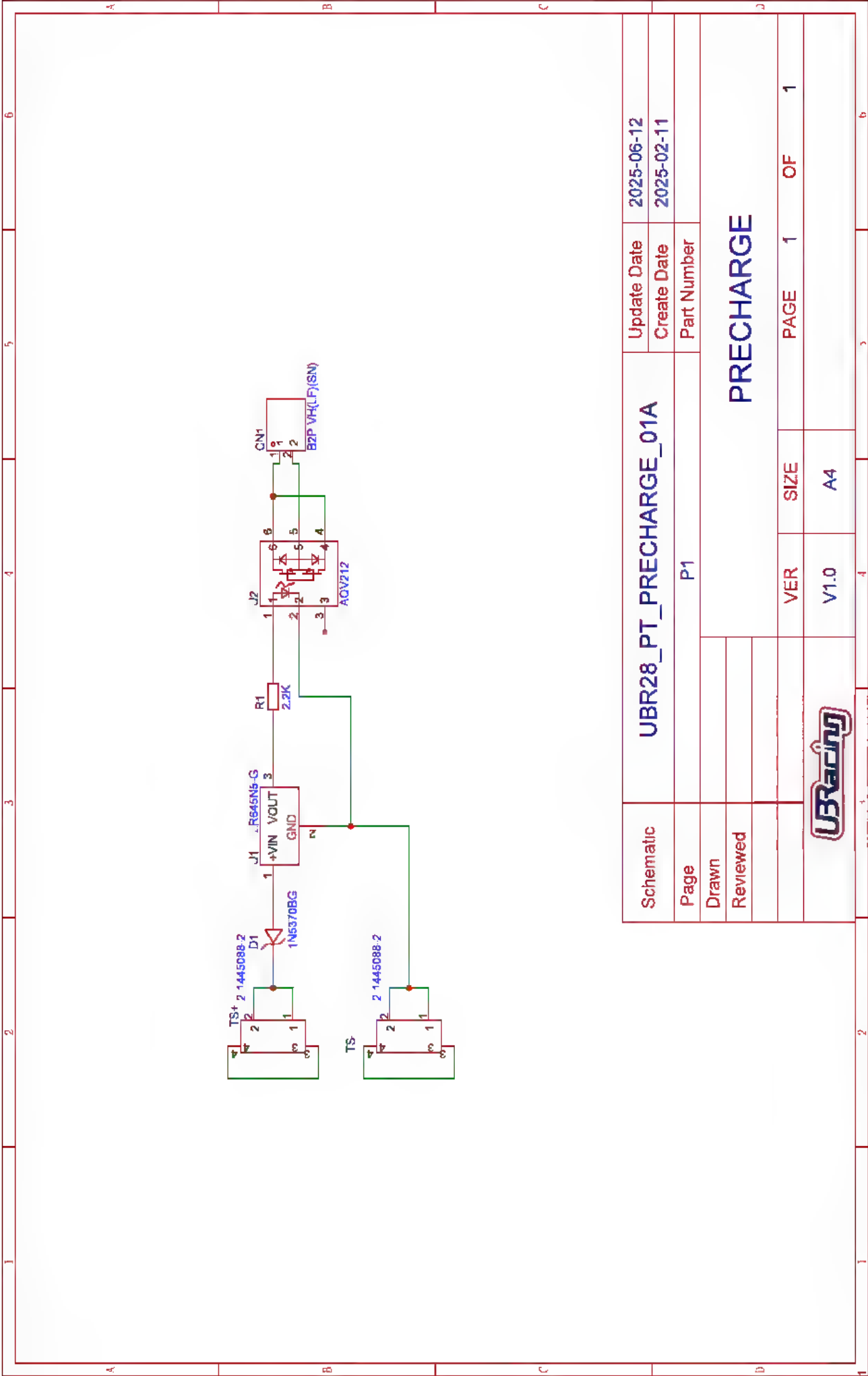



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Reviewed				
	Version	Size	Page 1 Total 1	
	V1.0	A4	UBRacing	
				





S. Number	UBR28_CO_TSAL_GREEN_02A	Update Date	2025-08-12
Part Number	UBR28_CO_TSAL0101A	Create Date	2025-02-17
Part Name	TSAL GREEN		
Design Engineer	JOSEPH H	Page	1
Design Checker	JACOB H	Size	A4
Version	01A	Qty	1
UBRacing			
UBRacing			



Schematic	UBR28_PT_PRECHARGE_01A			Update Date	2025-06-12
				Create Date	2025-02-11
Page	P1			Part Number	
Drawn	PRECHARGE				
Reviewed					
	VER	SIZE	PAGE	1	OF 1
	V1.0	A4			
					



Revisions

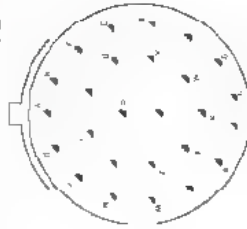
Rev	Date	Author	Description
08.06.2025		Aleksander Matuszkiewicz	Minor aesthetic changes to drawing

Bill of Materials

Id	Type	Manufacturer	Part Number	Quantity
1	Connector	Molex	70107-0004	1
2	Connector	Souriau	BS7A616265N	1
3	Ring Terminal			19
5	Cable	M.L. TICONIP PRO	MP010248	2 0 in
7	Contact	Souriau	BS99-0702 J	26
8	Cable	igus	CF240.03.24	

BS7A/87A

16-26



SHIELD_GND

025

From	To	Conductor	Color	Size	Notes
025 A	BMS CAN 1	CB.4 Brown	Brown	26 AWG	CAN H
025 B	BMS CAN 2	CB.4 White Brown	White	26 AWG	CAN LO
025 C	RT1	CB.2 White 1	White	22 AWG	12V 1V BATTERY
025 D	RT2	CB.2 Brown-2	Brown	22 AWG	SDC N
025 E	RT3	CB.2 Green-3	Green	22 AWG	SDC OUT
025 F	RT4	CB.2 Yellow-4	Yellow	22 AWG	MD FAULT LIGHT SIGNAL
025 G	RT5	CB.2 Gray-5	Gray	22 AWG	AMS FAULT LIGHT SIGNAL
025 H	RT6	CB.2 Pink 6	Pink	22 AWG	LATCH RESET BUTTON
025 J	RT7	CB.2 Blue 7	Blue	22 AWG	MD MASSIS GND
025 K	RT8	CB.2 Red 8	Red	22 AWG	12V GND
025 L	RT9	CB.2 Black-9	Black	22 AWG	+ MOS
025 M	RT10	CB.2 Violet 10	Violet	22 AWG	MOS
025 N	RT11	CB.2 Gray-Pink 11	Gray-Pink	22 AWG	AT'S RJN
025 P	RT12	CB.2 Red-Blue-12	Red-Blue	22 AWG	TSA, RESET BUTTON
025 R	RT13	CB.2 White-Green-13	White-Green	22 AWG	TSA, GREEN SIGNAL
025 S	RT14	CB.2 Brown-Green 14	Brown-Green	22 AWG	T5 ON BUTTON
025 T	RT15	CB.2 White-Yellow 15	White-Yellow	22 AWG	12V TSA, BATTERY
025 V	RT16	CB.2 Yellow-Brown-16	Yellow-Brown	22 AWG	TSA, SWITCHED SUPPLY
025 W	RT17	CB.2 White-Gray 17	White-Gray	22 AWG	DIS, HARVE REJAY CONTROL SIGNAL
025 X	UNLSED	CB.2 Gray-Brown 18	Gray-Brown	22 AWG	SDC (AT'S)
025 Y	UNLSED	CB.2 White-Pink 19	White-Pink	22 AWG	
025 Z	UNLSED	CB.2 Pink-Brown 20	Pink-Brown	22 AWG	
025 a	UNLSED	CB.2 White-Blue-21	White-Blue	22 AWG	
025 b	UNLSED	CB.2 Brown-Blue-22	Brown-Blue	22 AWG	
025 c	UNLSED	CB.2 White-Red 23	White-Red	22 AWG	
025 c	SHIELD_GND	CB.2 Shield	Shield	22 AWG	

From	To	Conductor	Color	Size
BMS CAN 1	025 A	CB.4 Brown	Brown	26 AWG
BMS CAN 2	025 B	CB.4 White Brown	White	26 AWG
RT1	025 C	CB.2 White 1	White	22 AWG
RT2	025 D	CB.2 Brown-2	Brown	22 AWG
RT3	025 E	CB.2 Green-3	Green	22 AWG
RT4	025 F	CB.2 Yellow-4	Yellow	22 AWG
RT5	025 G	CB.2 Gray 5	Gray	22 AWG
RT6	025 H	CB.2 Pink 6	Pink	22 AWG
RT7	025 J	CB.2 Blue 7	Blue	22 AWG
RT8	025 K	CB.2 Red 8	Red	22 AWG
RT9	025 L	CB.2 Black 9	Black	22 AWG
RT10	025 M	CB.2 Violet 10	Violet	22 AWG
RT11	025 N	CB.2 Gray-Pink 11	Gray-Pink	22 AWG
RT12	025 P	CB.2 Red-Blue 12	Red-Blue	22 AWG
RT13	025 R	CB.2 White-Green-13	White-Green	22 AWG
RT14	025 S	CB.2 Brown-Green 14	Brown-Green	22 AWG
RT15	025 T	CB.2 White-Yellow-15	White-Yellow	22 AWG
RT16	025 U	CB.2 Yellow-Brown-16	Yellow-Brown	22 AWG
RT17	025 V	CB.2 White-Gray 17	White-Gray	22 AWG
RT18	025 W	CB.2 Gray-Brown 18	Gray-Brown	22 AWG

Drawn By	Name	Date
Joseph Hoke		
Eng Approved		
Mfg Approved		
QA		

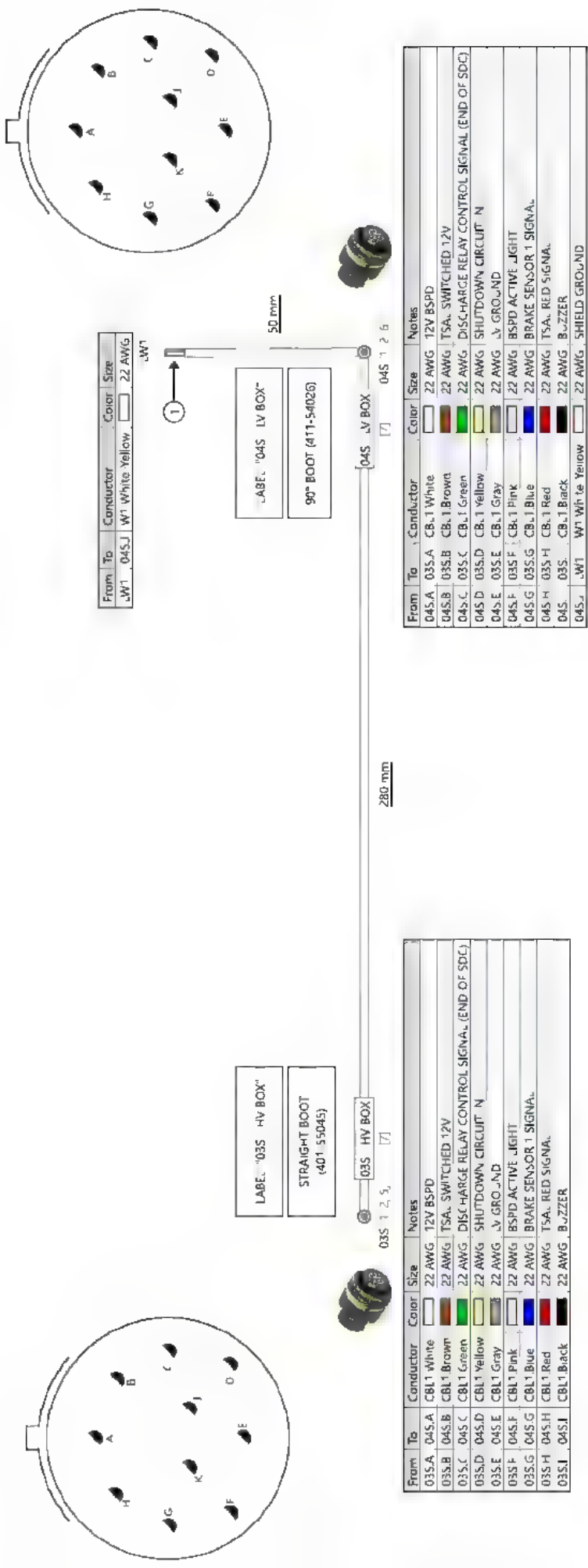


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Title	16-26 V to Accumulator Harness
Part Number	UBR28L_CO_ACCUMULATOR
Description	DIB
Revision	

Revisions		
Rev	Date	Author Description
Notes		
① CONNECT LW1 TO CF240.03 14 SH ELD SOLDERED CONNECTION.		

Bill of Materials			
Id	Type	Manufacturer	Part Number
1	CONNECTOR	Souriau	85TA6-12-985A
2	CONTACT	Souriau	85990707900
3	CABLE	gus	IGUS CHA NIELEX CF240.03 14 (14x22 AWG CORES)
4	WIRE	RS PRO	RS PRO 22 AWG
5	BOOT	HelermannTyton	401-55045
6	BOOT	HelermannTyton	411-54026
7	LABEL		



Revisions

Rev	Date	Author	Description
02/04/2025	Christella Sandoz	REVISED SHIELD GROUND, ADDED ROOTS	
20/05/2025	Christella Sandoz	CHANGED SHIELD GROUND TO MC END OF HARNESS	

Notes

Bill of Materials

id	Type	Manufacturer	Part Number	Quantity
1	Connector	Soucial	85TA012985N	1
2	Cable		Igus chainflex CF240.03 14 (14x22 AWG Cores)	1
3	Connector	Binder	99-5662 75 19	1
4	Connector	Binder	99-0436-14-05	1
5	Wire			≥ 0 in
6	Wire			≥ 0 in
7	Root	HellermannTyton	154-42G	1
8	Wire		22 AWG Black	1

From	To	Conductor	Color	Size	From Contact PN	Notes
C3.4	C1.A	W2 Green	Green	26 AWG		TWISTED PA R OUTS DE CAN HI
C3.5	C1.B	W4 White-Green	White-Green	26 AWG		TWISTED PA R OUTS DE CAN LO

From	To	Conductor	Color	Size
W1	C2.C	W5 Black	Black	22 AWG

From	To	Conductor	Color	Size	From Contact PN	Notes
C1.A	C3.4	W2 Green	Green	26 AWG		TWISTED PAIR OUTSIDE CAN H
C1.B	C3.5	W4 White-Green	White-Green	26 AWG		TWISTED PAIR OUTSIDE CAN LO
C1.D	C2.D	CB.1 Brown	Brown	22 AWG		12 V
C1.E	C2.G	CB.1 Green	Green	22 AWG		FGR/RUN
C1.F	C2.H	CB.1 Yellow	Yellow	22 AWG		A.N+
C1.G	C2.I	CB.1 Gray	Gray	22 AWG		A.N
C1.H	C2.K	CB.1 Pink	Pink	22 AWG		Logic END
C1.J	C2.T	CB.1 Blue	Blue	22 AWG		REF
C1.K	C2.V	CB.1 Red	Red	22 AWG		12 V

From	To	Conductor	Color	Size	From Contact PN	Notes
C2.C	W1	W5 Black	Black	22 AWG		GROUND
C2.D	C1.D	CB.1 Brown	Brown	22 AWG		12 V
C2.G	C1.E	CB.1 Green	Green	22 AWG		FGR/RUN
C2.H	C1.F	CB.1 Yellow	Yellow	22 AWG		A.N+
C2.J	C1.G	CB.1 Gray	Gray	22 AWG		A.N
C2.K	C1.H	CB.1 Pink	Pink	22 AWG		Logic GND
C2.T	C1.J	CB.1 Blue	Blue	22 AWG		REF
C2.U	C1.K	CB.1 Red	Red	22 AWG		12 V

Title	Part Number	Name	Date
UBR28 CO_V_MC_01A			
Revision			
Drawn By			
Mfg Approved			
QA			

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Rev	Date	Author	Description
	13/06/2025	CHRISTIAN S	SPELLING CHANGES

Bill of Materials			
id	Type	Manufacturer	Part Number
3	Wire	RS Pro	22 AWG Red
4	Wire	RS Pro	22 AWG Black
6	Connector	Souriau	85TA61095SN
9	Connector	Souriau	85TA01099PN

Notes



From	To	Conductor	Color	Size	Notes
C1 A	C2 A	W1 Red	Red	22 AWG	BRAKE LIGHT
C1 B	C2 B	W3 Black	Black	22 AWG	BRAKE LIGHT
C1 C	C2 C	W2 Red	Red	22 AWG	FAN
C1 D	C2 D	W4 Black	Black	22 AWG	FAN
C1 E	W1	W5 Black	Black	22 AWG	SHELD
C1 F	C2 F	W6 Red	Red	22 AWG	PUMP POS
C1 G	C2 G	W7 Black	Black	22 AWG	PUMP NEG

W1

From	To	Conductor	Color	Size
W1	C1 E	W5 Black	Black	22 AWG

From	To	Conductor	Color	Size	Notes
C2 A	C1 A	W1 Red	Red	22 AWG	BRAKE LIGHT
C2 B	C1 B	W3 Black	Black	22 AWG	BRAKE LIGHT
C2 C	C1 C	W2 Red	Red	22 AWG	FAN
C2 D	C1 D	W4 Black	Black	22 AWG	FAN
C2 F	C1 F	W6 Red	Red	22 AWG	PUMP POS
C2 G	C1 G	W7 Black	Black	22 AWG	PUMP NEG

Title		Part Number	Revision
Ground Connection from LV Box to Rear of Car		BR28 CO_V_REAR 01A	
Description		Drawn By	QA
		Leo	
		Name	Date
		Leo	3-4-25



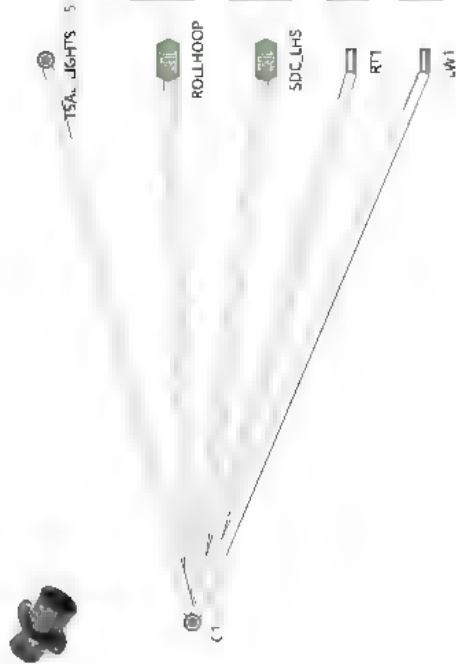
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Revisions

Rev	Date	Author	Description	Id	Type	Manufacturer	Part Number	Quantity
01A	08/04/2025	SAM BOND	NIT A. RELEASE	1	Connector	Sourau	BS1AB1298PN	1
01B	24/05/2025	SAM BOND	ADDED W/ GROUND (TSA) AND CHANGED RING TERM NAL TO LOOSE END	14	Wire	Black		1250 mm
01C	24/05/2025	SAM BOND	MOVED BUZZER GROUND TO ROLL HOOP AND ADDED MID GROUND AS LOOSE END	15	Connector	JST	83P-VH(LF)SN	1
01D	06.06.2025	ALEKSANDER MATUSZKIEWICZ	JST 83P VH SN ADDED TO TSA LIGHTS	16	Wire		RS PRO	

Bill of Materials

Id	Type	Manufacturer	Part Number	Quantity
1	Connector	Sourau	BS1AB1298PN	1
14	Wire	Black		1250 mm
15	Connector	JST	83P-VH(LF)SN	1
16	Wire		RS PRO	



From	To	Conductor	Color	Size	Notes
TSA_LIGHTS.1	C1.1	W2	White	22 AWG	
TSA_LIGHTS.2	C1.2	W4	Brown	22 AWG	
TSA_LIGHTS.3	C1.6	W18	Black	22 AWG	

From	To	Conductor	Color	Size	Notes
C1.1	TSA_LIGHTS.1	W2	White	22 AWG	RED LED SUPPLY
C1.2	TSA_LIGHTS.2	W4	Brown	22 AWG	GREEN LED SUPPLY
C1.3	ROLL HOOP	W6	Green	22 AWG	BUZZER SUPPLY
C1.4	ROLL HOOP	W8	Yellow	22 AWG	GROUND (BUZZER)
C1.5	W1	W10	Gray	22 AWG	MID ROLL HOOP GROUND
C1.6	TSA_LIGHTS.3	W18	Black	22 AWG	W/ GROUND (TSA)
C1.7	SDC_LHS	W12	Pink	22 AWG	SDC OUT
C1.8	SDC_LHS	W14	Blue	22 AWG	SDC IN
C1.9	RT1	W16	White	22 AWG	SHIELD GROUND

From	To	Conductor	Color	Size	Notes
ROLL HOOP	C1.3	W6	Green	22 AWG	BUZZER SUPPLY
ROLL HOOP	C1.4	W8	Yellow	22 AWG	W/ GROUND (BUZZER)

From	To	Conductor	Color	Size	Notes
SDC_LHS	C1.7	W12	Pink	22 AWG	SDC OUT
SDC_LHS	C1.8	W14	Blue	22 AWG	SDC IN

From	To	Conductor	Color	Size	Notes
RT1	C1.9	W16	White	22 AWG	SHIELD GROUND

From	To	Conductor	Color	Size	Notes
W1	C1.5	W10	Gray	22 AWG	MID ROLL HOOP GROUND

Title: W/ TO ROLL HOOP HARNESS

Description:

Part Number: UBR28L_CO_V_ROLL HOOP_0

Revision: 1D

Drawn By: SAM BOND

Eng Approved:

Mfg Approved:

Name:

Date:



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Revision History		
Rev	Date	Description
01A	28/09/2025	First Draft Harness
01B	02/04/2025	Added Boots, Boot Labeling, Changed Wire Order
01C	08/06/2025	Alexander Matuzek, EWICZ Wires and Labels Added, Conductor Ordering Changed

Notes

1

All sleeving to be Hellermann Tyton SE28 unless otherwise stated

2

All measurements to centre 90° face of connector (straight boot), centre transition or specified datum

3

Label all connectors with connector ID and title cover label with CC-LV

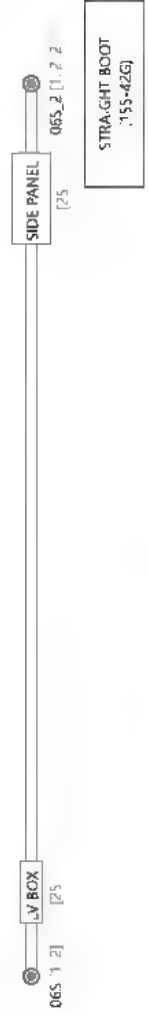
4

Fit blanking plugs behind all unused connector contacts

5

Bundle orientation not critical, unless otherwise stated

Bill of Materials			
ID	Type	Manufacturer	Part Number
1	Connector	Sourtau	85TA614155N
2	Contact		22 AWG
19	Cable		igus chainflex CF-240 03 14 (14x27 AWG Cores)
21	Boot	HellermannTyton	T55-42G
22	Wire		16 AWG Red
24	Wire		22 AWG Black
25	Cable		2



From	To	Conductor	Color	Size	Notes
065.1	065.2.1	CB.1 White		22 AWG	BSPD CURRENT SENSOR SIGNAL TEST (OUT)
065.2	065.2.2	CB.1 Brown		22 AWG	LATCH RESET BUTTON + (IN)
065.3	065.2.3	CB.1 Green		22 AWG	LATCH RESET BUTTON (OUT)
065.4	065.2.4	CB.1 Yellow		22 AWG	TSAL RESET BUTTON + (2V) (IN)
065.5	065.2.5	CB.1 Gray		22 AWG	TSAL RESET BUTTON SIG (IN)
065.6	065.2.6	CB.1 Pink		22 AWG	TSMS NEGATIVE (OUT)
065.7	065.2.7	CB.1 Blue		22 AWG	SHUTDOWN INDICATOR LIGHT 1 (IN)
065.8	065.2.8	CB.1 Red		22 AWG	SHUTDOWN INDICATOR LIGHT 2 - (OUT)
065.9	065.2.9	CB.1 Black		22 AWG	SHUTDOWN INDICATOR LIGHT 3 (OUT)
065.10	065.2.10	CB.1 Violet		22 AWG	SHUTDOWN INDICATOR LIGHT 4 (OUT)
065.11	065.2.11	CB.1 Gray-Pink		22 AWG	SHIELD GROUND (OUT)
065.12	065.2.12	CB.1 Red-Blue		22 AWG	TSAL BATTERY POSITIVE (IN)
065.13	065.2.13	CB.1 Brown-Green		22 AWG	UNUSED
065.14	065.2.14	W1 Red		16 AWG	LVM5
065.15	065.2.15	W3 Back		22 AWG	GROUND

From	To	Conductor	Color	Size	Notes
065.2.1	065.1	CB.1 White		22 AWG	BSPD CURRENT SENSOR SIGNAL TEST (OUT)
065.2.2	065.2	CB.1 Brown		22 AWG	LATCH RESET BUTTON + (IN)
065.2.3	065.3	CB.1 Green		22 AWG	LATCH RESET BUTTON (OUT)
065.2.4	065.4	CB.1 Yellow		22 AWG	TSAL RESET BUTTON + (2V) (IN)
065.2.5	065.5	CB.1 Gray		22 AWG	TSAL RESET BUTTON SIG (IN)
065.2.6	065.6	CB.1 Pink		22 AWG	TSMS NEGATIVE (OUT)
065.2.7	065.7	CB.1 Blue		22 AWG	SHUTDOWN INDICATOR LIGHT 1 (IN)
065.2.8	065.8	CB.1 Red		22 AWG	SHUTDOWN INDICATOR LIGHT 2 (OUT)
065.2.9	065.9	CB.1 Black		22 AWG	SHUTDOWN INDICATOR LIGHT 3 (OUT)
065.2.10	065.10	CB.1 Violet		22 AWG	SHUTDOWN INDICATOR LIGHT 4 (OUT)
065.2.11	065.11	CB.1 Gray-Pink		22 AWG	SHIELD GROUND (OUT)
065.2.12	065.12	CB.1 Red-Blue		22 AWG	TSAL BATTERY POSITIVE (IN)
065.2.13	065.13	CB.1 Brown-Green		22 AWG	UNUSED
065.2.14	065.14	W1 Red		16 AWG	LVM5
065.2.15	065.15	W3 Back		22 AWG	GROUND

U-BR28 CO-LV-5 DE

HARNESS LV BOX TO SIDE PANEL R.H.S

HARNESS FROM LV BOX TO SIDE PANEL R.H.S

Part Number

Revision

01C

Drawn By

Eng Approved

Mfg Approved

QA

Name

Simon Ram

Date

28/09/2025






U-BRacing

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Revisions		
Rev.	Date	Author Description

Bill of Materials			
id	Type	Manufacturer	Part Number Quantity
2	Wire	RS Pro	8736992 4
3	Connector	Souriau	8STA61098SN 1

Notes	




From	To	Conductor	Color
C1.1	ST1	W1 Orange	
C1.2	ST1	W2 Orange	
C1.3	ST1	W3 Orange	
C1.4	C1.5	W4 Orange	
C1.5	C1.4	W4 Orange	
C1.6			



C1.3.



ST1

From	To	Conductor	Color
ST1	C1.1	W1 Orange	
ST1	C1.2	W2 Orange	
ST1	C1.3	W3 Orange	

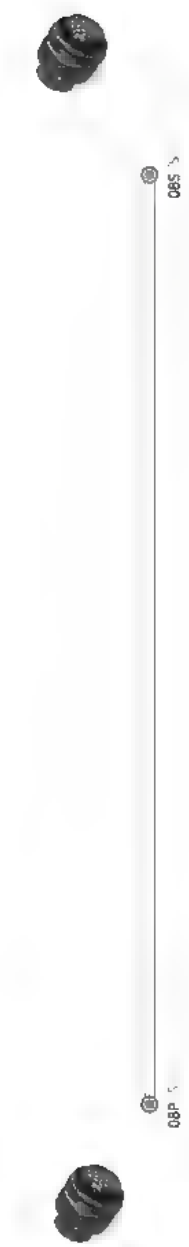
Title	Part Number	HV+ Measurement Points	Revision	Drawing		
				Drawn By	Checked By	Date
Description						
					</	

Revisions		
Rev	Date	Author
01A	24/03/2025	Jorge Blanco
01B	26/03/2025	Jorge Blanco

B II of Materials

Id	Type	Manufacturer	Part Number	Quantity
3	Cable	igus chaimflex	F240.03.14 (14x22 AWG cores)	1800 mm
5	Connector	Somau	85TA614195N	2
6	Wire	CAN HI		1800mm
7	Wire	CAN LOW		1800 mm

Notes	
①	PINS M AND N ARE NOT PART OF THE IGUS CABLE THESE ARE INDIVIDUAL WIRES TO BE TWISTED AROUND THE IGUS CABLE



From	To	Conductor	Color	Size	Notes
08P A	08S A	CB.2 White	White	22 AWG	12V
08P B	08S B	CB.2 Brown	Brown	22 AWG	SHUTDOWN C RCU T IN
08P C	08S C	CB.2 Green	Green	22 AWG	SHUTDOWN C RCU T OUT
08P D	08S D	CB.2 Yellow	Yellow	22 AWG	MD FAULT LIGHT SIGNAL +
08P E	08S E	CB.2 Gray	Gray	22 AWG	AMS FAULT LIGHT SIGNAL +
08P F	08S F	CB.2 Pink	Pink	22 AWG	TS ON BUTTON +
08P G	08S G	CB.2 Blue	Blue	22 AWG	TS ON BUTTON
08P H	08S H	CB.2 Red	Red	22 AWG	TS OFF LED + (TSAL GREEN SIGNAL)
08P J	08S J	CB.2 Black	Black	22 AWG	R2D BUTTON +
08P K	08S K	CB.2 Violet	Violet	22 AWG	R2D BUTTON
08P L	08S L	CB.2 Gray-Pink	Gray-Pink	22 AWG	LV GROUND
08P M	08S M	W1 Violet-Orange	Violet-Orange	26 AWG	CAN H
08P N	08S N	W2 Yellow-Black	Yellow-Black	26 AWG	CAN LOW
08P P	08S P	CB.2 Brown-Green	Brown-Green	22 AWG	BSPD ACTIVE LED
08P R	08S R	CB.2 White-Yellow	White-Yellow	22 AWG	SHIELD GROUND

From	To	Conductor	Color	Size	Notes
08S A	08P A	CB.2 White	White	22 AWG	12V
08S B	08P B	CB.2 Brown	Brown	22 AWG	SHUTDOWN C RCU T IN
08S C	08P C	CB.2 Green	Green	22 AWG	SHUTDOWN C RCU T OUT
08S D	08P D	CB.2 Yellow	Yellow	22 AWG	MD FAULT LIGHT SIGNAL +
08S E	08P E	CB.2 Gray	Gray	22 AWG	AMS FAULT LIGHT SIGNAL +
08S F	08P F	CB.2 Pink	Pink	22 AWG	TS ON BUTTON +
08S G	08P G	CB.2 Blue	Blue	22 AWG	TS ON BUTTON
08S H	08P H	CB.2 Red	Red	22 AWG	TS OFF LED + (TSAL GREEN SIGNAL)
08S J	08P J	CB.2 Black	Black	22 AWG	R2D BUTTON +
08S K	08P K	CB.2 Violet	Violet	22 AWG	R2D BUTTON
08S L	08P L	CB.2 Gray-Pink	Gray-Pink	22 AWG	LV GROUND
08S M	08P M	W1 Violet-Orange	Violet-Orange	26 AWG	CAN H
08S N	08P N	W2 Yellow-Black	Yellow-Black	26 AWG	CAN LOW
08S P	08P P	CB.2 Brown-Green	Brown-Green	22 AWG	BSPD ACTIVE LED
08S R	08P R	CB.2 White-Yellow	White-Yellow	22 AWG	SHIELD GROUND

Title		Part Number	Revision	QA
LV DASHBOARD SCHEMATIC		08R28 LV DASH-01B	01B	
Description		MAIN HARNESS FROM HARNESS TO LV BOX		
		Drawn By	Eng Approved	Mfg Approved
		Name	Jorge	
		Date	24/03/2025	

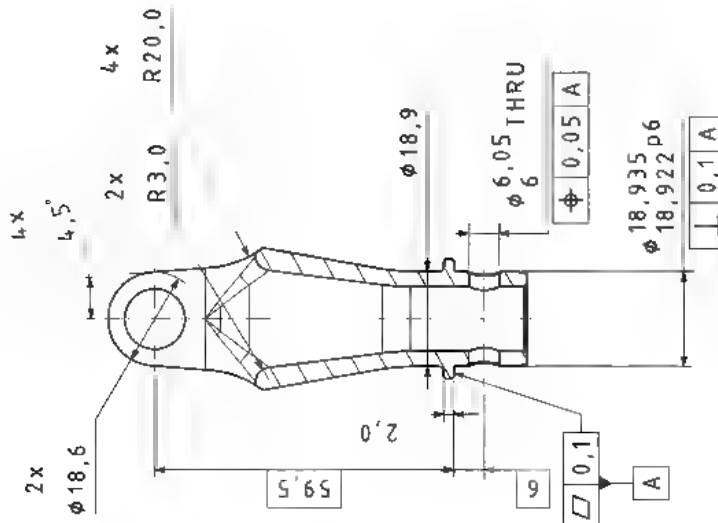


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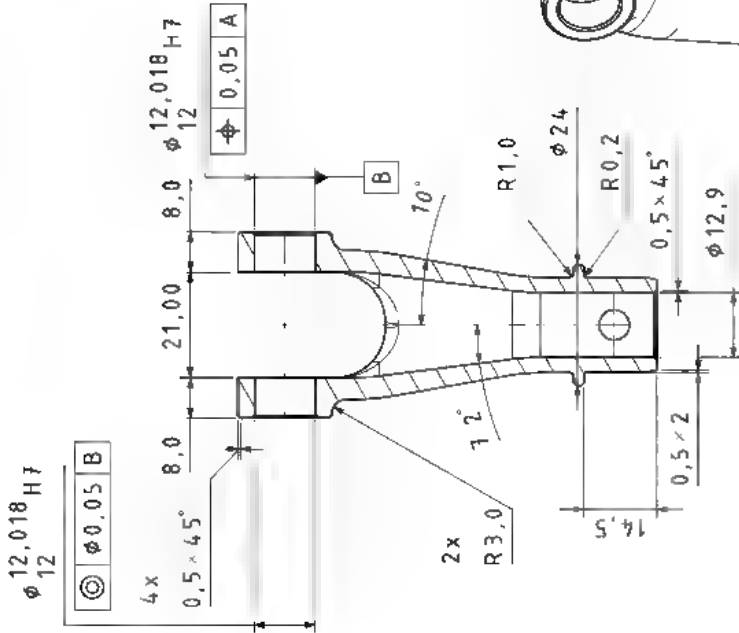
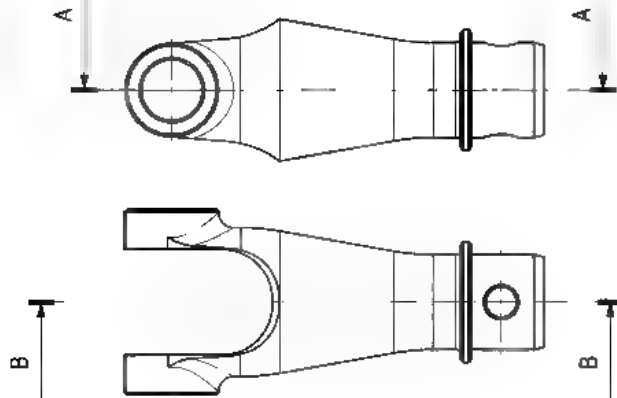
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$\phi 12,018 \text{ H7}$
 $\phi 12$

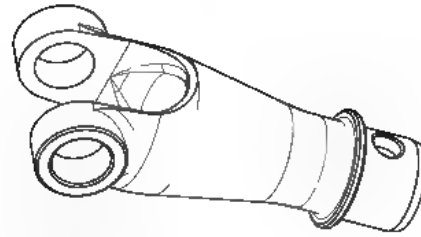
$\textcircled{\phi 0,05} \text{ B}$



SECTION B-B



SECTION A-A



SOMETRIC VIEW

NOTES

1 BREAK ALL SHARP EDGES

2 ANY UNDIMENSIONED FEATURES REFER TO CAD DATA $\phi 0,2$

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL ubracing@gmail.com

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MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES U O S

0 DECIMAL PLACES $\pm 0,50$

1 DECIMAL PLACES $\pm 0,25$

2 DECIMAL PLACES $\pm 0,10$

3 DECIMAL PLACES $\pm 0,05$

GENERAL TOLERANCE $\pm 0,10$

REMOVE BURRS AND SHARP EDGES

COMPONENT MASS: kg

0,068

DRAWN BY

EPC

SCALE

1:1

SHEET

1/1

MATERIAL SPEC

TITANIUM 6Al-4V

REACTIVITY

N A

SURFACE TREATMENT

N A

DESIGN: P. JON

PART NUMBER

UBR28 ST 201

1

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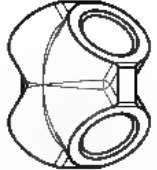
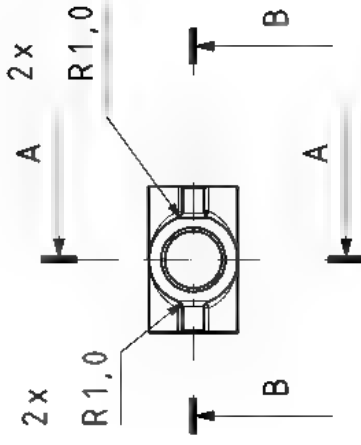
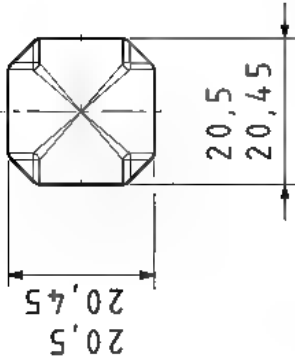
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B

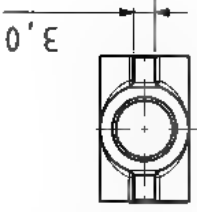
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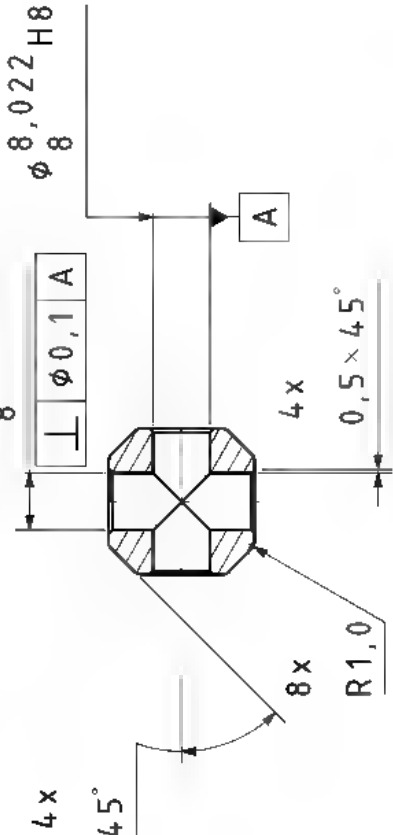
REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	EPC	18/01/2025



ISOMETRIC VIEW



SECTION A-A



SECTION B-B

NOTES:

1. BREAK ALL SHARP EDGES
2. ANY UNDIMENSIONED FEATURES REFER TO CAD DATA
3. 2 OFF PARTS REQUIRED.

UBRacing

IF IN DOUBT	ASK
A4	DO NOT SCALE
TEL	+44 (0)121 414 4218
E-MAIL	ubracings@gmail.com

MATERIAL CERTIFICATE REQUIRED	DIMENSIONS IN MILLIMETRES
0 DECIMAL PLACES	±0,50
1 DECIMAL PLACES	±0,25
2 DECIMAL PLACES	±0,10
3 DECIMAL PLACES	±0,02
GENERAL CONCENTRICITY	0,1 T14
ANGULAR TOLERANCE	±0,25°
REMOVE BURRS AND SHARP EDGES	

COMPONENT NO. 009	DRAWN BY	EPC
UNIVERSAL JOINT CENTRE		

MATERIAL SPEC.	TITANIUM 6AL 4V
HEAT TREATMENT	N A
SURFACE FINISH	N A
DESCRIPTION	UNIVERSAL JOINT CENTRE

COMPONENT NO. 009	DRAWN BY	EPC
UNIVERSAL JOINT CENTRE		

SCALE	1:1
-------	-----

SHEET PART	1/1
------------	-----

UBR28 ST 202

A

D

A

B

C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	PL	27 01/2025

4

3

2

1

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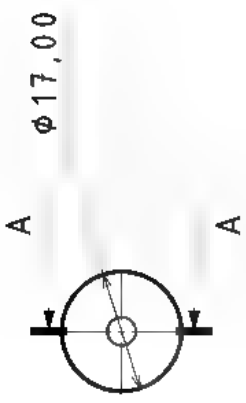
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REFERENCE VIEW

2 x

0,2 x 45°



Ø 4,00 THRU

1,5

SECTION A-A

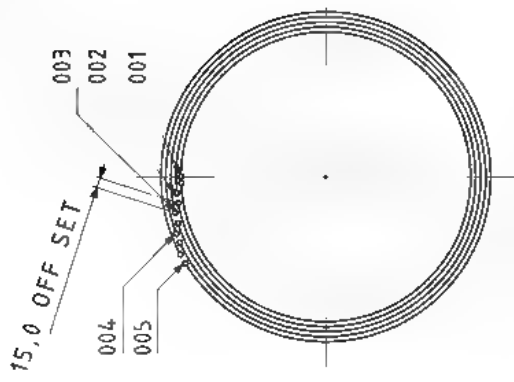
NOTES:

1. BREAK ALL SHARP EDGES
2. TEST FIT ON TO A M3 SHOULDER BOLT
3. 4 OFF PARTS ARE REQUIRED

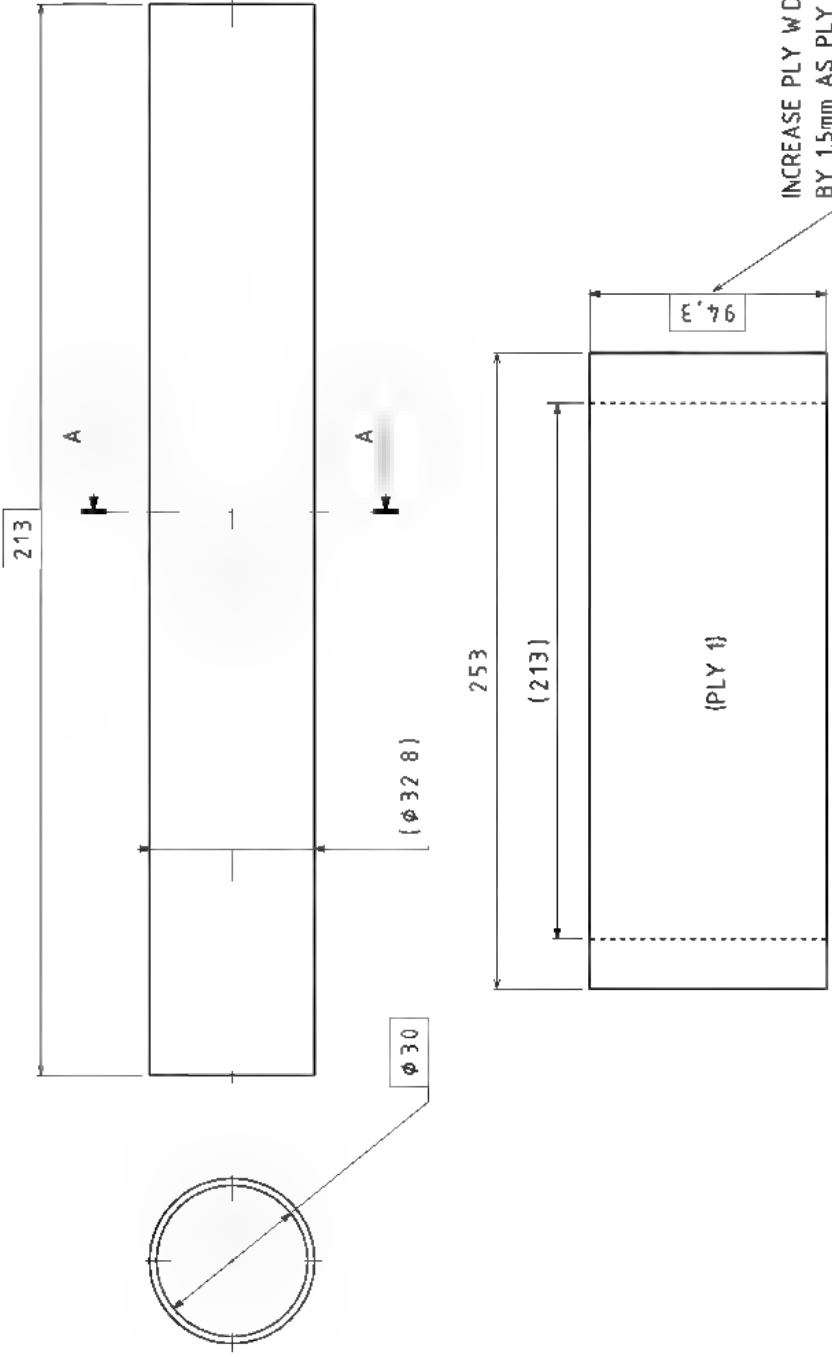
UBRacing		MATERIAL CERTIFICATE REQUIRED				COMPONENT	0.0009	MATERIAL SPEC	ALUMINIUM 7075
A4	IF IN DOUBT	ASK	DIMENSIONS IN MILLIMETRES 0 0 8				MEAN	N A	
	DO NOT SCALE		0 DECIMAL PLACES ±0 50				TREATMENT	N A	
	TEL	+44 (0)121 414 4218	1 DECIMAL PLACES ±0 25				SURFACE FINISH	N A	
	E-MAIL	ubracings@gmail.com	2 DECIMAL PLACES ±0 10				DESCRIPTION	ENDCAP	
		3 DECIMAL PLACES ±0 02				PL	ENDCAP	ENDCAP	ENDCAP
		ANGULAR TOLERANCE ±0 25°							
		REMOVE BURS AND SHARP EDGES				DRAWN BY	SCALE	1:1	UBR28_ST -
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D

A




SECTION VIEW A-A
PLY .AYJP DETAIL
5mm OVERLAP NEEDED
SCALE 21



INCREASE PLY WIDTH EACH TIME
BY 15mm AS PLY COUNT INCREASES

PLY ORIENTATION	PLY NUMBER
+/- 45	001
0/90	002
+ / 45	003
0/90	004
+/- 45	005

MATERIAL SPEC	205GSM 242 TWILL
REMARKS	N A
PRODUCTION SHEET	N A
DESIGNATION	CARBON CO.UMN MANUFACTURING INFORMATION
	SHEET 1 / 1
	U8R28 ST 207

PLY CUTS TO FOLLOW SOLID LINES
SCALE 1:2

NOTES:

DETAILS FOR THE PLY CUTTING FOR COLUMN TUBE

1 FOLLOW PLY TABLE FOR ORIENTATION (LOC, B2)

2 ENSURE TO EXTEND LENGTH OF PLY BY 20mm ON BOTH ENDS

3.5mm OVERLAP BETWEEN ALL PLAYS

4 LAYP ONTO ALUMINIUM MANDREL, ENSURE TO TREAT WITH
RELEASE AGENT PRIOR TO LAYUP

UBRACING		MATERIAL CERTIFICATE REQUIRED	
A3	IF IN DOUBT - ASK	DIMENSIONS IN MILLIMETRES $\times 0.5$ DECIMAL PLACES ± 0.50 1 DECIMAL PLACE ± 0.25 2 DECIMAL PLACES ± 0.10 3 DECIMAL PLACES ± 0.05 GENERAL CONCENTRICITY 0.1 TIR ANNUAL TOLERANCE ± 0.25	
TEL	+44 (0)121 414 4218	SPECIFIC DESIGN AND SUPPLY ESPECIALLY APPLICABLE TO THE PROPERTY OF UBRACING IT IS PRIVATE & CONFIDENTIAL AND IS ISSUED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE REPRODUCED OR COMMUNICATED TO ANY OTHER PARTY WITHOUT THE WRITTEN CONSENT OF UBRACING	
E MAIL	UBRACING@MAIL.COM		

RELEASE AGENT PRIOR TO LAYUP

I

A

A

B

C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	EPC	28/01/2025

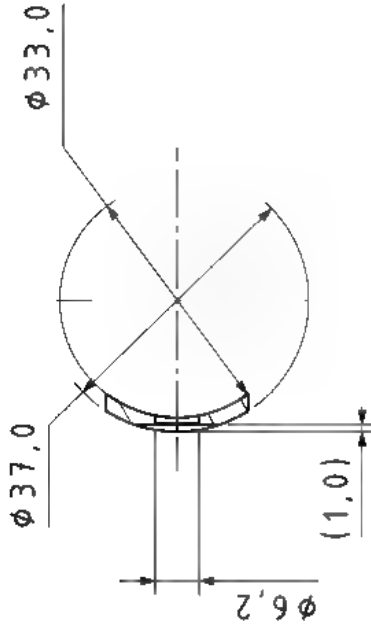
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4



REFERENCE VIEW

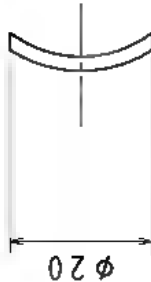
$\phi 12,0$ SF



SECTION A-A

3

3



2


2

NOTES:

1. BREAK ALL SHARP EDGES.
2. 4 OFF PARTS REQUIRED.

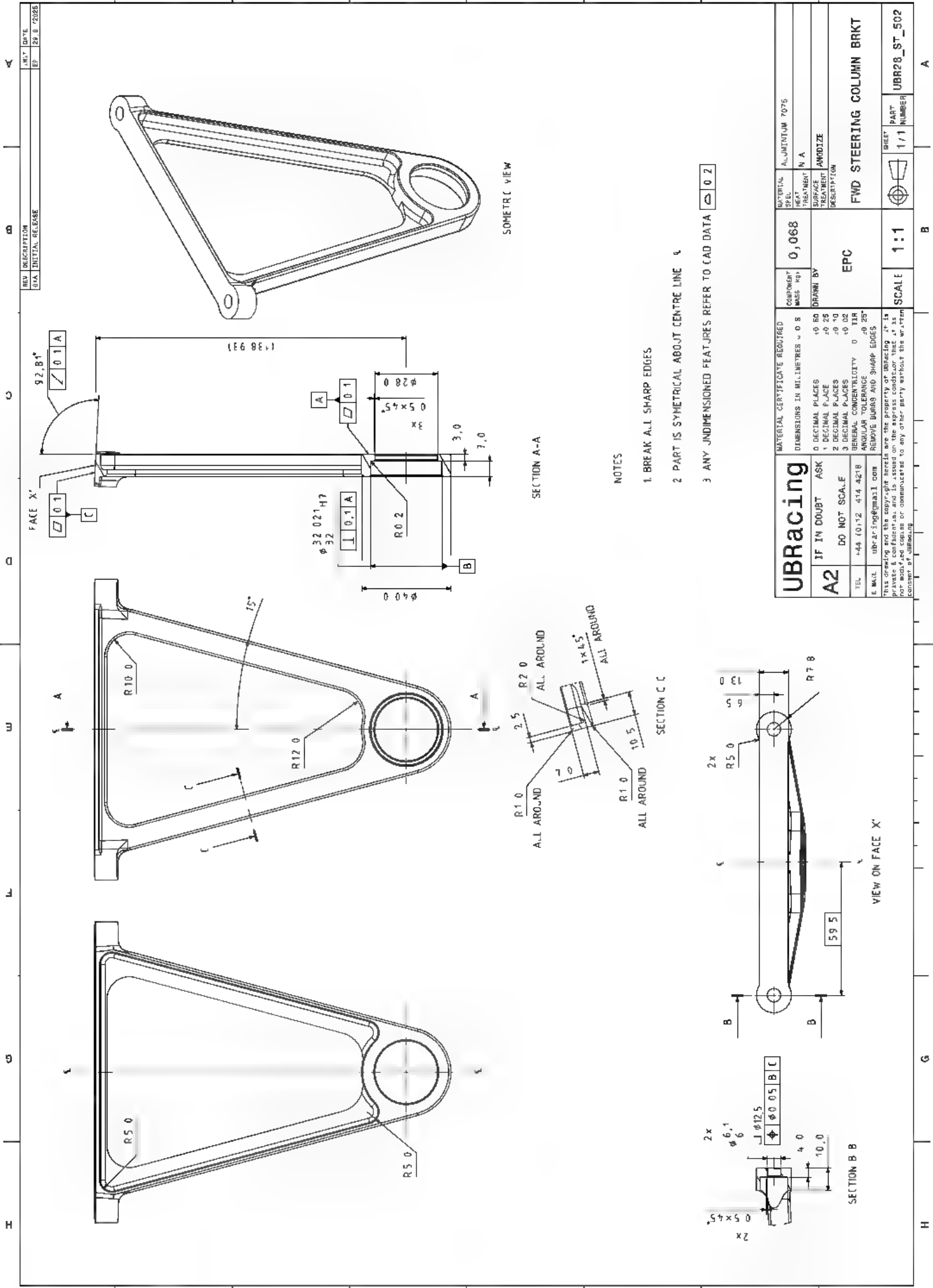
1

1

UBRacing		MATERIAL CERTIFICATE REQUIRED DIMENSIONS IN MILLIMETRES $\pm 0,9$		COMPONENT MASS (kg.)	0,002	MATERIAL SPEC HEAT TREATMENT	A. UMINIUM 7075
A4	IF IN DOUBT ASK	0 DECIMAL PLACES $\pm 0,50$ 1 DECIMAL PLACE $\pm 0,25$ 2 DECIMAL PLACES $\pm 0,10$ 3 DECIMAL PLACES $\pm 0,02$		DRAWN BY	EPC	SURFACE TREATMENT	ANODIZE
	DO NOT SCALE	GENERAL CONCENTRICITY $0,1$ TIR ANGULAR TOLERANCE $\pm 0,25^\circ$ REMOVE BURRS AND SHARP EDGES				DESCRIPTION	BONDED TOP HAT
TEL	+44 (0)121 414 4218						
E-MAIL	ubracing@gmail.com						
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SCALE				1:1			SHEET PART 1/1 NUMBER
							UBR28 ST 210

D

A



ISOMETRIC VIEW

SECTION A-A

SECTION C-C

SECTION B-B

NOTES

- 1. BREAK ALL SHARP EDGES
- 2. PART IS SYMMETRICAL ABOUT CENTRE LINE
- 3. ANY UNDIMENSIONED FEATURES REFER TO CAD DATA

UBRacing		MATERIAL CERTIFICATE REQUIRED		QUANTITY		MATERIAL	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES ± 0.8		0,068		ALUMINIUM 7075	
A2		0 DECIMAL PLACES		DRAWN BY		N A	
DO NOT SCALE		1 DECIMAL PLACES		EPC		ANODIZE	
TEL: +44 (0)12 414 4218		2 DECIMAL PLACES		SCALE		FWD STEERING COLUMN BRKT	
E MAIL: ubracing@gmail.com		3 DECIMAL PLACES		1:1		PART NUMBER	
This drawing and the copyright herein are the property of UBRacing. It is private & confidential, and is issued on the express condition that it is not modified, copied or communicated to any other party without the written consent of UBRacing.		GENERAL CONCENTRICITY		1:1		UBR28_ST_502	
		ANGULAR TOLERANCE		1:1			
		REMOVE BURRS AND SHARP EDGES					

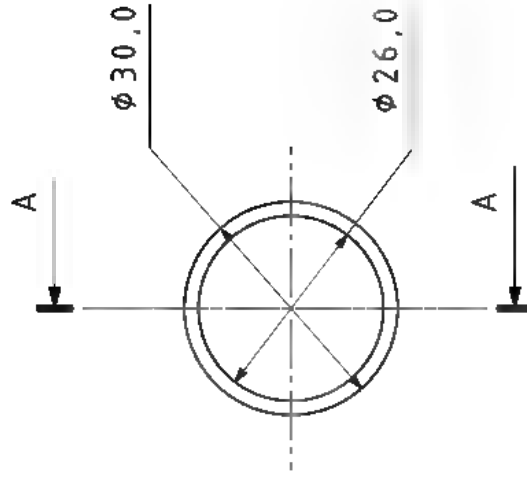
A

B

C


D

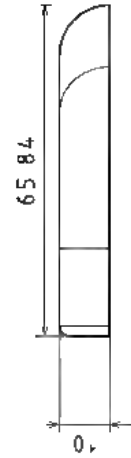
REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	EPC	08/12/2024



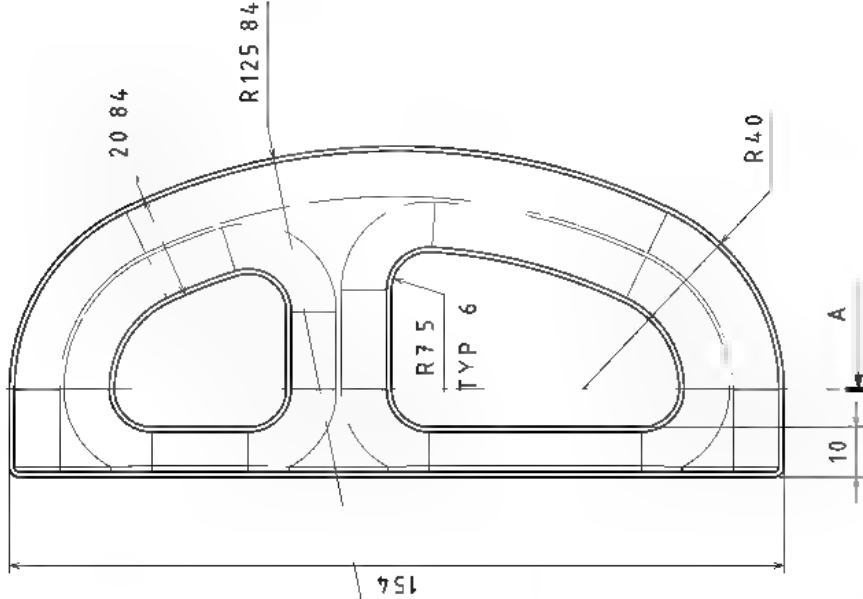
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SECTION A-A
SCALE 1:2

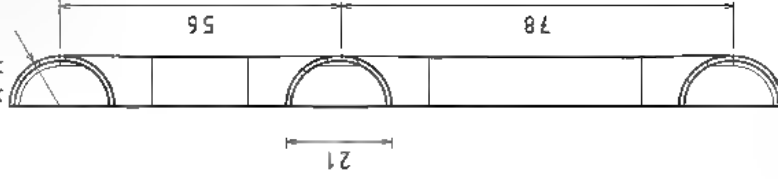
UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	A. UMINI JIN	
A4	IF IN DOUBT ASK	DIMENSIONS IN MILLIMETRES 0.8		N/A		WELD TREATMENT	N A	
	DO NOT SCALE	0 DECIMAL PLACES ± 0.50		DRAWN BY		SUPPLIER TOLERANCE	N A	
	TEL +44 (0)121 414 4218	1 DECIMAL PLACES ± 0.25		EPC		DESCRIPTION		
	E-MAIL ubracing@gmail.com	2 DECIMAL PLACES ± 0.10				COLUMN TUBE MANDREL		
		3 DECIMAL PLACES ± 0.02						
		GENERAL CONCENTRICITY 0.1 TIR						
		ANGULAR TOLERANCE ± 0.25°						
		REMOVE BURRS AND SHARP EDGES						
				SCALE	1 : 1		SHEET	PART
							1/1	NUMBER
								UBR28 ST 900
<p>This drawing and the copyright herein are the property of UBRacing. It is to be used as a reference only and is not to be used for any other purpose without the written consent of UBRacing.</p>								



A



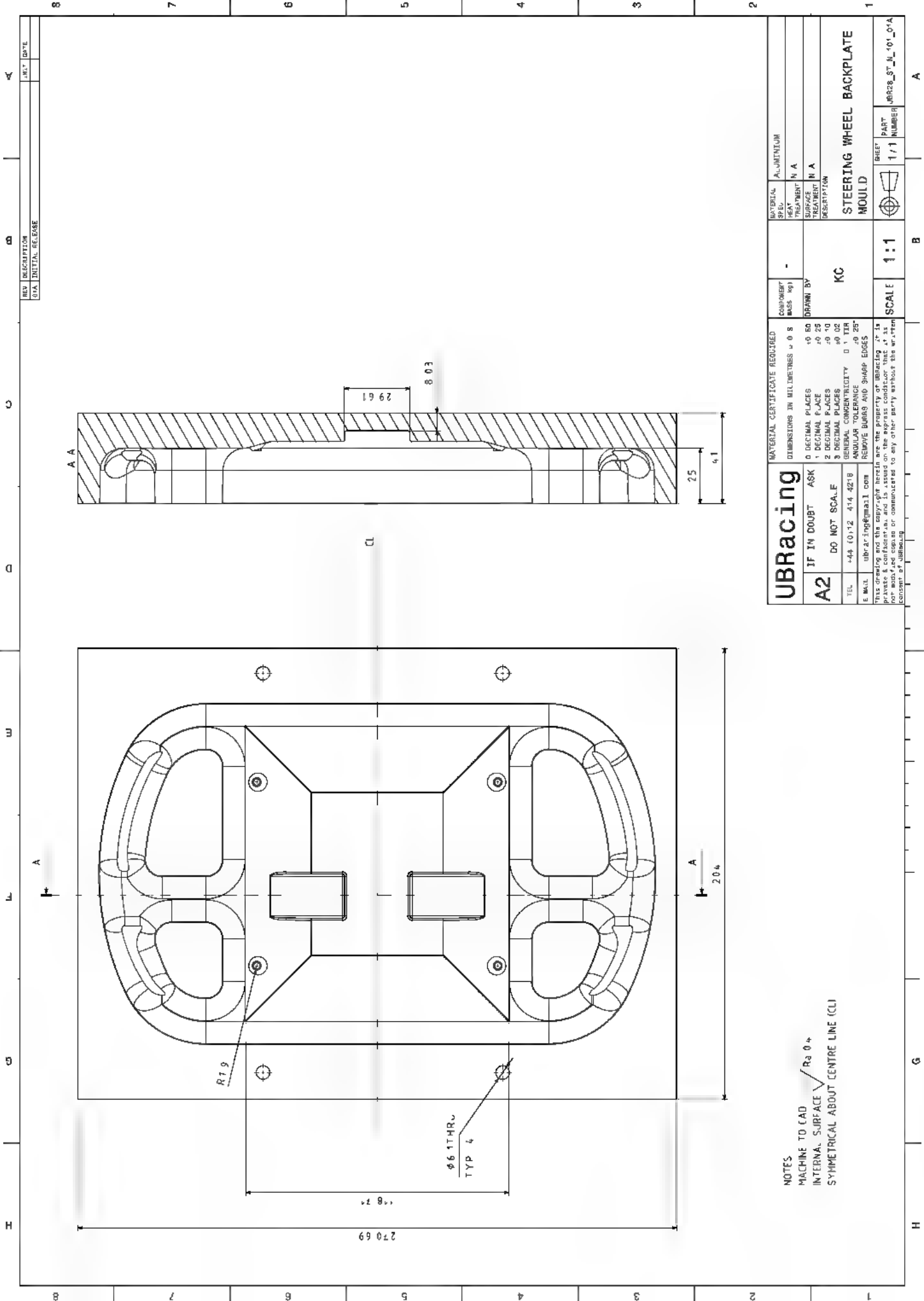
A-A R10



NOTES
INTERNAL VIEW SHOWN
R-HAND IS MIRRORED
CARBON SHELL THICKNESS 1 MM

LAMINATE TABLE			
OP NO	MATERIAL SPECIFICATION	ORIENTATION	POSITION
10	CLEAN AND RELEASE TOOLING		
20	XC110 (331T2 2101250)	65	1 PLY, ALL OVER
30	DEBULK FOR 30 MINUTES		
40	XC110 (331T2 2101250)	0/90	1 PLY, ALL OVER
50	XC110 (331T2 2101250)	0/90	1 PLY, ALL OVER
60	DEBULK FOR 30 MINUTES		
70	XC110-(331T2-2101250)	65	1 PLY, ALL OVER
80	VACUUM BAG AND CURE RAMP TO 80C DWELL FOR 30 MIN RAMP TO 120C SOAK FOR 120 MIN RAMP DOWN		

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		-		MATERIAL SPEC		SEE LAMINATE TABLE	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES ± 0.5		DRAWN BY		KC		REAR TREATMENT		N/A	
A3		0 DECIMAL PLACES ±0.50		1 DECIMAL PLACE ±0.25		2 DECIMAL PLACES ±0.10		SURFACE TREATMENT		N/A	
DO NOT SCALE		3 DECIMAL PLACES ±0.05		GENERAL CONCENTRICITY 0.1 TIR		ANGULAR TOLERANCE ±0.25°		REMOVE BURRS AND SHARP EDGES			
TEL +44 (0)121 414 4218		E MAIL ubracing@gmail.com		This drawing and the copyright herein are the property of UBRacing. It is not to be used for any other purpose without the written consent of UBRacing.							



NOTES
MACHINE TO CAD
INTERNAL SURFACE $Ra 0.4$
SYMMETRICAL ABOUT CENTRE LINE (CL)

UBRacing		MATERIAL CERTIFICATE REQUIRED		CAUTIONARY MASS (kg)		-		MATERIAL	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES ± 0.5		DRAWN BY				ALUMINIUM	
DO NOT SCALE		0 DECIMAL PLACES ±0.50						HEAT TREAT	
		1 DECIMAL PLACES ±0.25						N A	
		2 DECIMAL PLACES ±0.10						SURFACE TREATMENT	
		3 DECIMAL PLACES ±0.02						N A	
		GENERAL CONCENTRICITY ± 0.1 IIR						DESCRIPTION	
		ANGULAR TOLERANCE ±0.25°						KC	
		REMOVE BURRS AND SHARP EDGES						STEERING WHEEL BACKPLATE	
		This drawing and the copyright herein are the property of UBRacing. It is private & confidential, and is issued on the express condition that it is not modified, copied or communicated to any other party without the written consent of UBRacing.						MOULD	
TEL +44 (0)12 414 4278		SCALE 1:1						SHEET 1/1	
E MAIL ubrac@btinternet.com								PART NUMBER	
								UBR26_ST_N_101_01A	

H G F E D C B A

REV	DESCRIPTION	DATE
0 A	INITIAL RELEASE	

4

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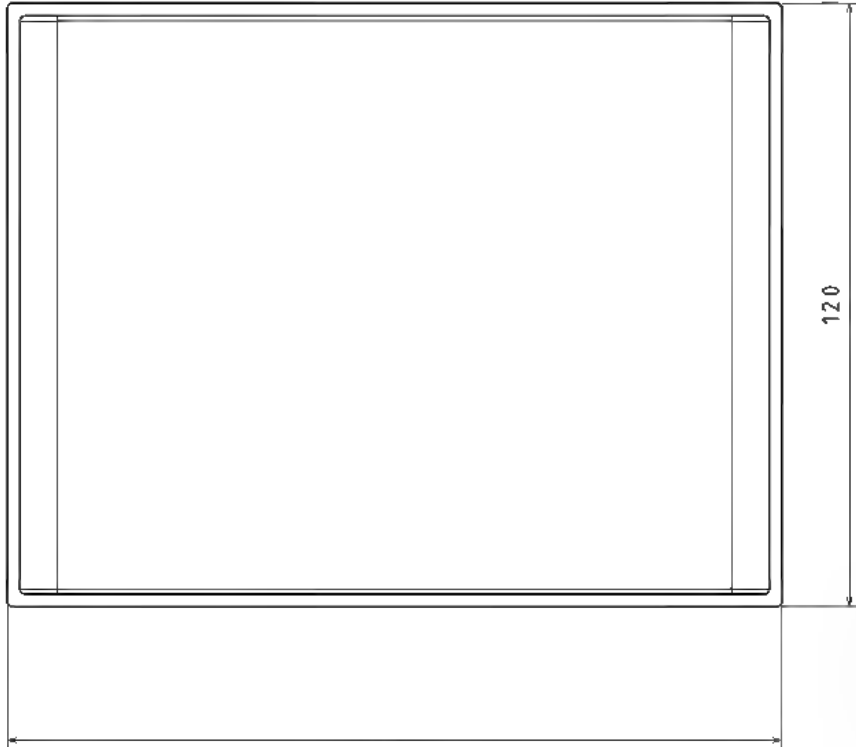
3

2

2


1

1



LAMINATE TABLE		
OP NO	MATERIAL SPECIFICATION	POSITION
10	CLEAN AND RELEASE TOOLING	
20	XC110 C33IT2 210(1250, 45	1 PLY ALL OVER
30	DEBULK FOR 30 MINUTES	
40	XC110-C33IT2-210(1250, 0/90	1 PLY ALL OVER
50	XC110-C33IT2-210(1250, 0/90	1 PLY ALL OVER
60	DEBULK FOR 30 MINUTES	
70	XC110 C33IT2 210(1250, 45	1 PLY ALL OVER
80	VACUUM BAG AND CURE RAMP TO 80C DWELL FOR 30 MIN, RAMP DOWN TO 120C SOAK FOR 120 MIN, RAMP DOWN	

NOTES
INTERNAL VIEW SHOWN
CARBON SHELL THICKNESS 1 MM

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT MASS .kg		-		MATERIAL SPEC		SEE LAMINATE TABLE				
A3	IF IN DOUBT - ASK	DIMENSIONS IN MILLIMETRES ± 0.5		DRAWN BY	KC	SURFACE TREATMENT	N A	SURFACE TREATMENT	N A		SHEET 1/1	PART NUMBER	JBR28 ST N 103 01A	
	D0 NOT SCALE	0 DECIMAL PLACES ±0.50												
	+44 (0)121 414 4218	1 DECIMAL PLACES ±0.25												
E MAIL ubracing@gmail.com	2 DECIMAL PLACES ±0.02		DESCRIPTION											
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		REMOVE BURRS AND SHARP EDGES												

H

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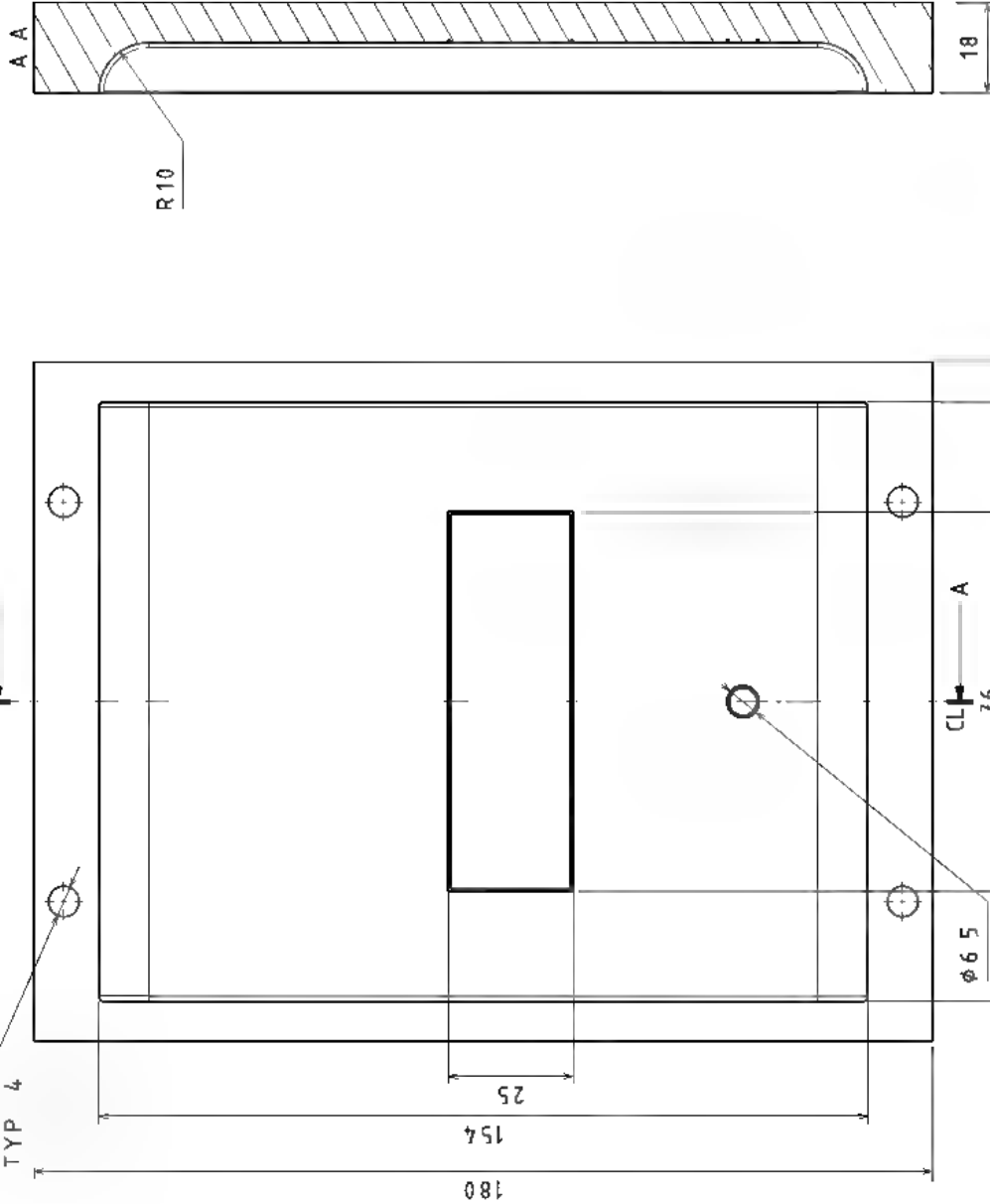
H G F E D C B A

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE		

Ø 6 1 THRU

TYP 4

A



UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

*TEL +44 (0)121 414 4218

E MAIL ubracing@gmail.com

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MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES U O S

0 DECIMAL PLACES ±0.50

1 DECIMAL PLACES ±0.25

2 DECIMAL PLACES ±0.10

GENERAL CONCENTRICITY 0.10

ANGULAR TOLERANCE 0.10

REMOVE BURRS AND SHARP EDGES

COMPONENT MASS .Kg

DRAWN BY

KC

SCALE

1:1

SHEET

1/1

MATERIAL SPEC

REACTIVITY

SURFACE TREATMENT

DESCRIPTION

ALUMINIUM

N A

N A

N A

STEERING WHEEL FRONT

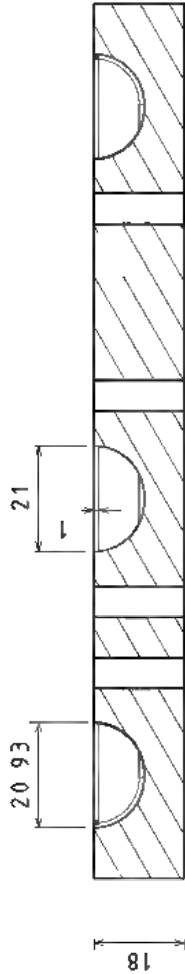
PLATE MOLD

JBK28 ST N 103M 0 A

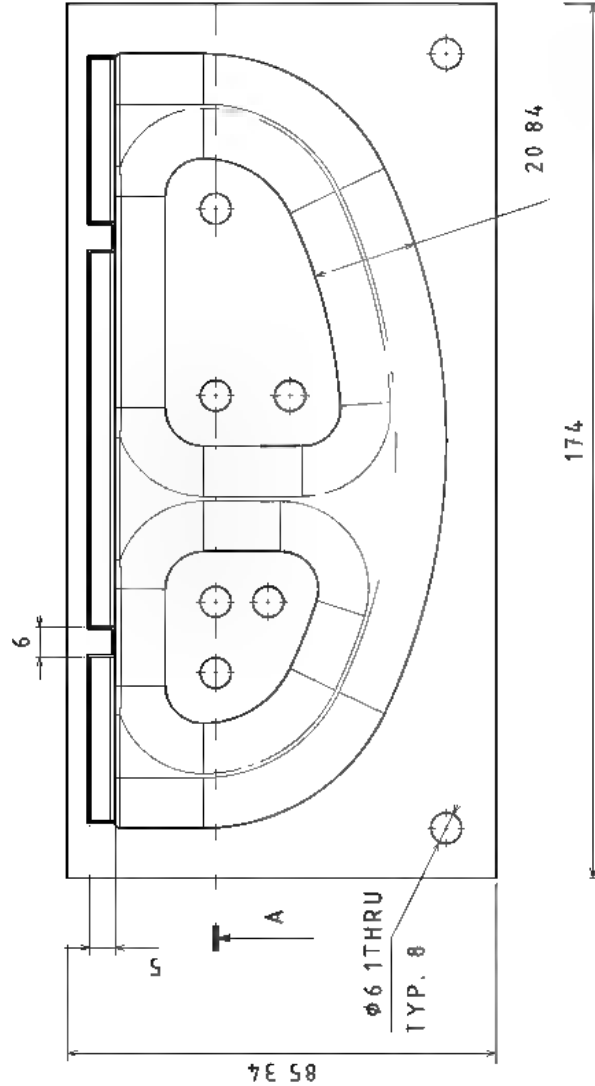
H G F E D C B A

H G F E D C B A

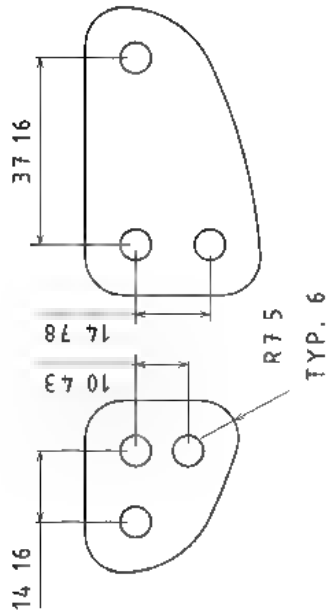
REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE		



A-A



EXTRUDES VIEW



NOTES

MACHINE TO CAD
INTERNAL SURFACE Ra 0.4
R HAND MIRROR

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

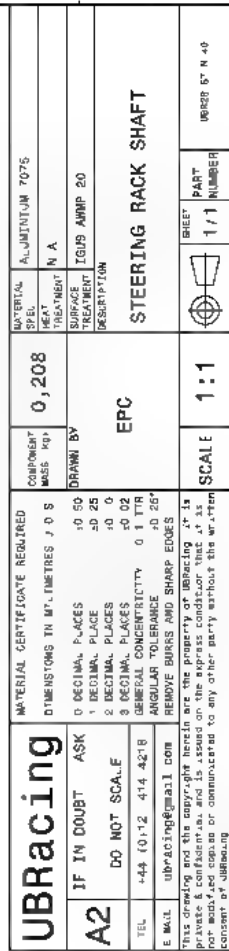
TEL +44 (0)121 414 4218

E MAIL ubracing@ema.1.com

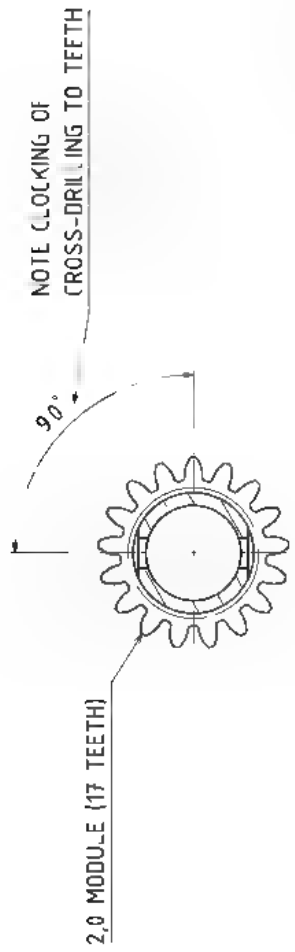
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MATERIAL	ALUMINIUM	COMPONENT	MATERIAL	ALUMINIUM
SPEC		MASS		
REACTIVITY	N A	DRAWN BY		
SURFACE TREATMENT	N A	KC		
DESCRIPTION				
STEERING WHEEL HANDLE				
MOULD R				
SCALE 1:1				
SHEET 1/1				
PART NUMBER JBR28 ST R 102M 01A				

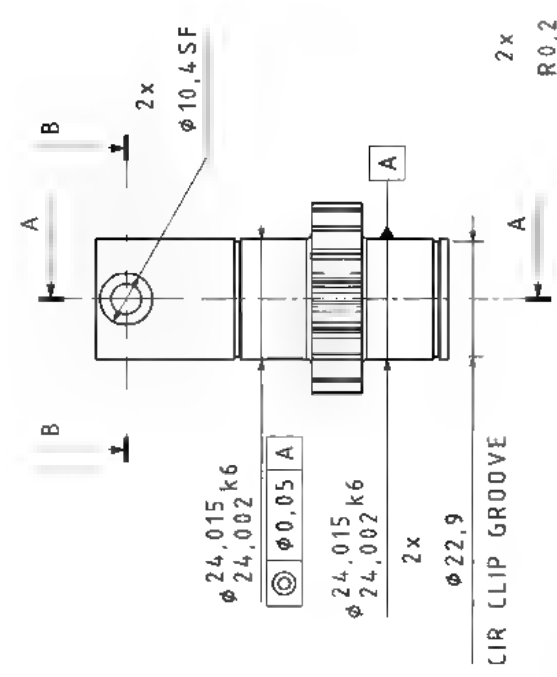
H G F E D C B A



3 ANY UNDIMENSIONED FEATURES REFER TO CAD

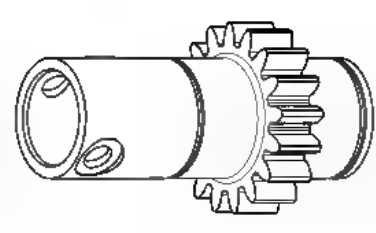


SECTION B-B

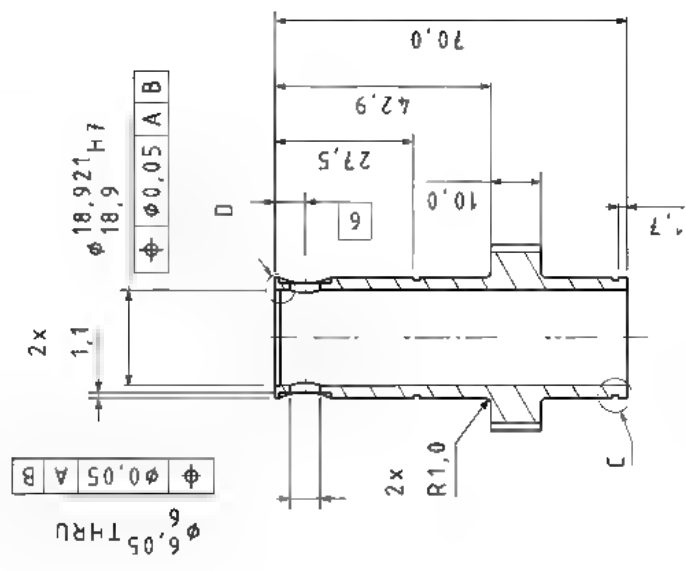


NOTES

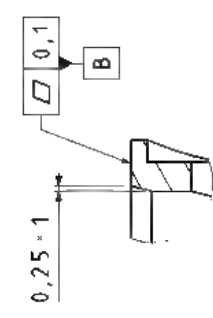
- 1 BREAK ALL SHARP EDGES
- 2 IMPORTANT NOTE CLOCKING OF CROSS-DRILLING
N RELATON TO GEAR TOOTH
- 3 PART MESHES WITH JBR28_ST_N_403



ISOMETRIC VIEW



SECTION A-A



DETAIL D
SCALE 4:1

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL ubracing@gmail.com

REMOVE BURRS AND SHARP EDGES

MATERIAL	SPEC	STEEL	817M40T
REACT	REACT	N A	
SURFACE	SURFACE	N A	
TREATMENT	TREATMENT	N A	
DESIGN	DESIGN	N A	

COMPONENT MASS: kg

0,124

DRAWN BY

EPC

SCALE

1:1

SHEET

1/1

PART NUMBER

UBR28 ST N 402

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	EPC	0 2024

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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	PL	10/02/2025

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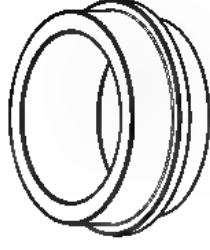
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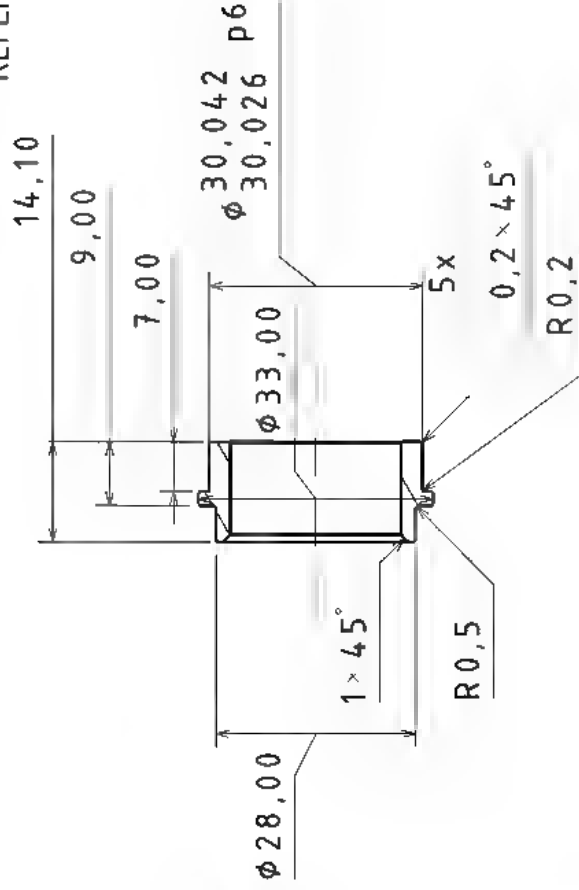
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1



REFERENCE VIEW



SECTION A-A

NOTES:

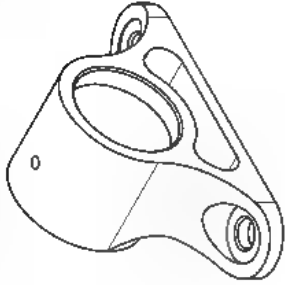
1. BREAK ALL SHARP EDGES
2. TEST FIT ONTO COMPONENTS PROVIDED
3. 2 OFF PARTS REQUIRED

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT	0.009	MATERIAL	ALUMINIUM 6082	
A4	IF IN DOUBT ASK	DIMENSIONS IN MILLIMETRES 0.8		DRAWN BY	PL	HEAT TREATMENT	N/A	
	DO NOT SCALE	0 DECIMAL PLACES ±0.50				SURFACE FINISH	N/A	
	TEL +44 (0)121 414 4218	1 DECIMAL PLACES ±0.25				DESCRIPTION		
	E-MAIL ubracing@gmail.com	2 DECIMAL PLACES ±0.10				PINION SPACER		
		3 DECIMAL PLACES ±0.02		SCALE		1:1	SHEET PART	
		GENERAL CONCENTRICITY 0.1 TIR		1:1		UBR28_ST_N	1/1	
		ANGULAR TOLERANCE ±0.25°				NUMBER	405	
REMOVE BURRS AND SHARP EDGES								
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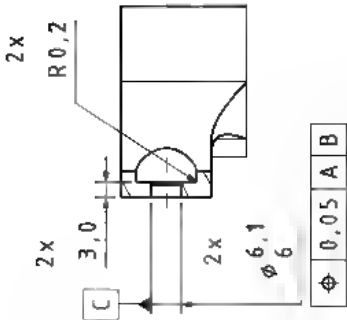
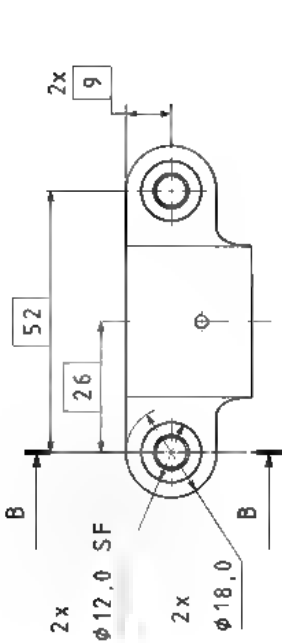
D

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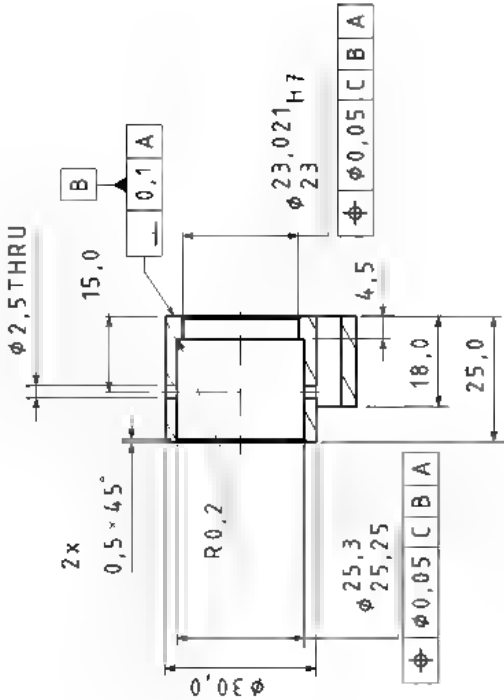
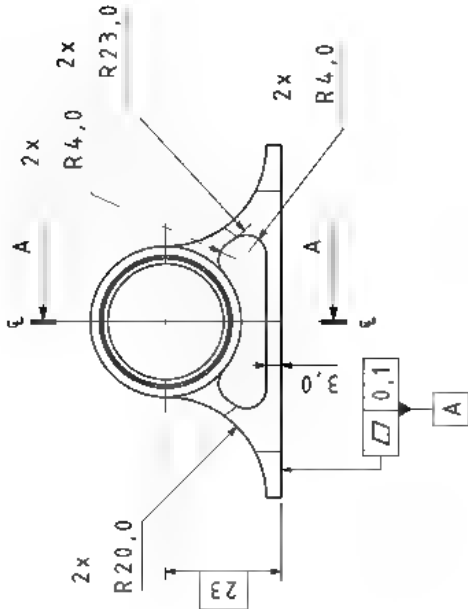
REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	EPC	28 0 2025



ISOMETRIC VIEW



SECTION B-B



SECTION A-A

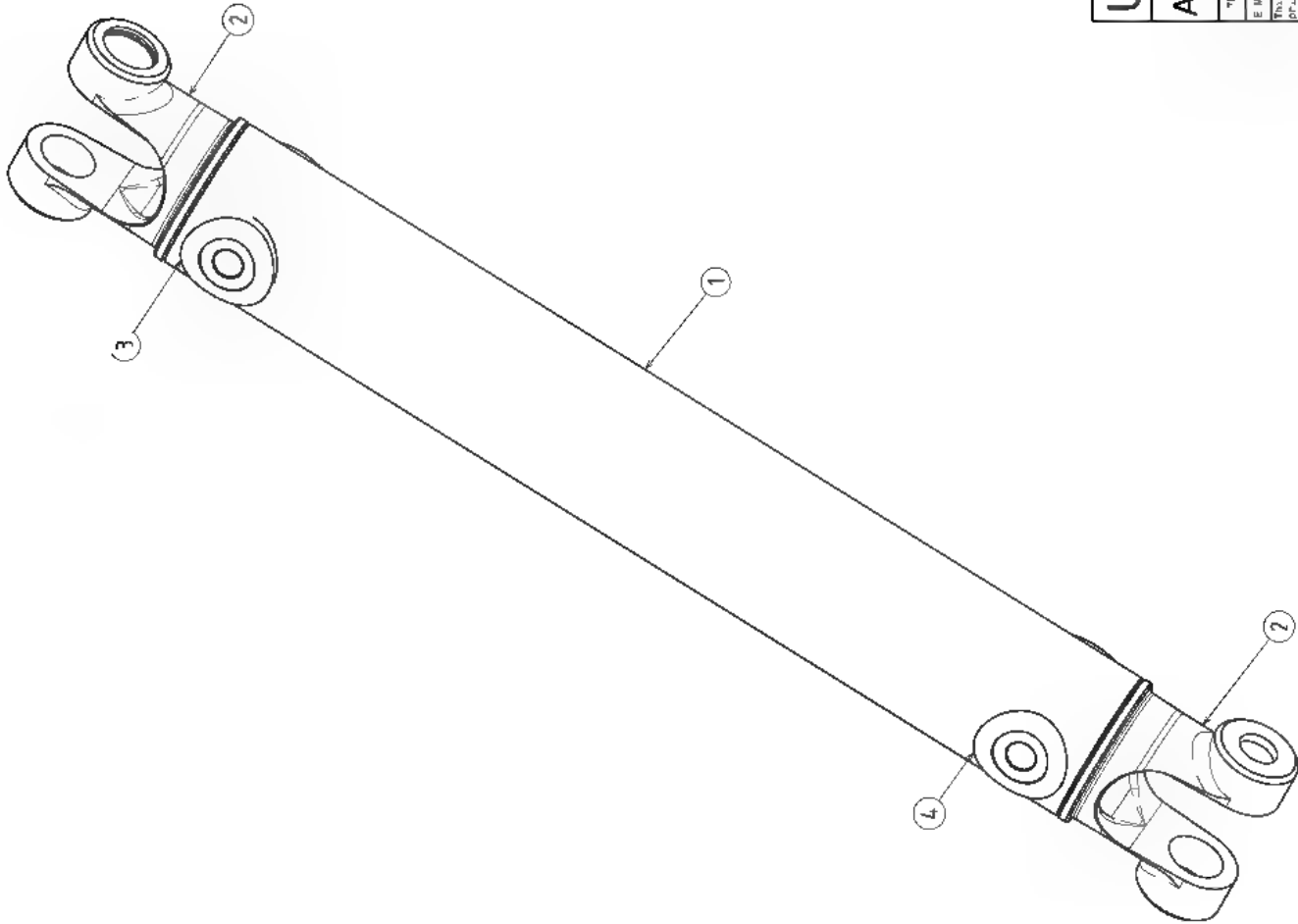
NOTES

- 1 BREAK ALL SHARP EDGES
- 2 PART IS SYMMETRICAL ABOUT CENTRE LINE 'C'
- 3 ANY UNDIMENSIONED FEATURE REFER TO CAD DATA 0.2
- 4 2 OFF PARTS REQUIRED

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES TO 0.5		MASS - kg		SPEC.	
A3		0 DECIMAL PLACES		0.033		ALUMINIUM 7075	
DO NOT SCALE		1 DECIMAL PLACES		DRAWN BY		REVISION	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES		EPC		N A	
E MAIL jbracing@gmail.com		3 DECIMAL PLACES		EPC		TREATMENT	
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		ANGULAR TOLERANCE 0.1		EPC		DESCRIPTION	
		REMOVE BURRS AND SHARP EDGES		EPC		STEERING RACK MOUNT	
				SCALE 1:1		SHEET 1/1	
				PART NUMBER		UBR28 ST 406	

H G F E D C B A

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	EPC	8 4 26

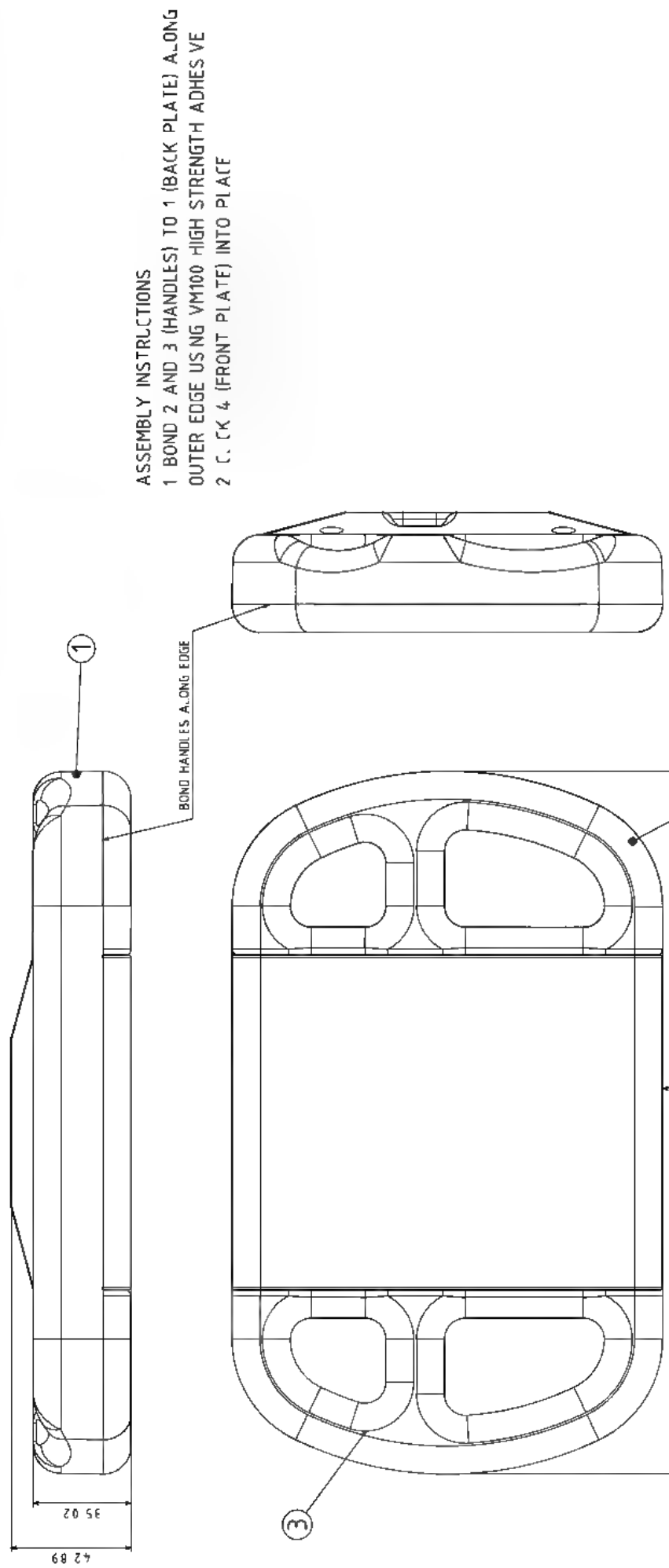


ITEM	QTY	PART NUMBER	PART DESCRIPTION	MATERIAL
001	1	UBR28_ST_207	CARBON TUBE	CARBON FIBRE
002	2	UBR28_ST_N_205	BONDED U,	T TANUM 6AL4V
003	4	UBR28_ST_N_210	SUPPORT COLLAR	P_A
004	1	SP-460	3M STRUCTURAL ADHESIVE	N/A

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES ± 0.5		MASS (kg)		SPEC	
A3		0 DECIMAL PLACES ±0.50		DRAWN BY		REACTIVITY	
DO NOT SCALE		1 DECIMAL PLACES ±0.25		EPC		SURFACE TREATMENT	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES ±0.02		SCALE 1:1		DESCRIPTION	
E MAIL ubracing@gmail.com		GENERAL CONCENTRICITY 0.0171		PART NUMBER		BONDED STEERING COLUMN	
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		REMOVE BURRS AND SHARP EDGES		1/1			

H G F E D C B A

Item No	Quantity	Title	Description	Material
1	1	UBR28_ST_N_101_01A	BACK PLATE	CARBON FIBRE LAMINATE
2	1	UBR28_ST_R_102_01A	HANDLE R	CARBON FIBRE LAMINATE
3	1	UBR28_ST_L_102_01A	HANDLE L	CARBON FIBRE LAMINATE
4	1	UBR28_ST_N_103_01A	FRONT PLATE	CARBON FIBRE LAMINATE



ASSEMBLY INSTRUCTIONS
1 BOND 2 AND 3 (HANDLES) TO 1 (BACK PLATE) ALONG
OUTER EDGE USING VM100 HIGH STRENGTH ADHESIVE
2 CLIP 4 (FRONT PLATE) INTO PLACE

UBRacing

IF IN DOUBT ASK

A2

DO NOT SCALE

TEL +44 (0)12 414 4218

E MAIL ubracing@gmail.com

MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES U D S

0 DECIMAL PLACES ±0.50

1 DECIMAL PLACES ±0.25

2 DECIMAL PLACES ±0.10

3 DECIMAL PLACES ±0.05

GENERAL CONCENTRICITY 0.1 TIR

ANGULAR TOLERANCE ±0.25

REMOVE BURRS AND SHARP EDGES

CAUTIONARY MASS (kg)

DRAWN BY

KC

SCALE 1:1

MATERIAL SPECIFICATION

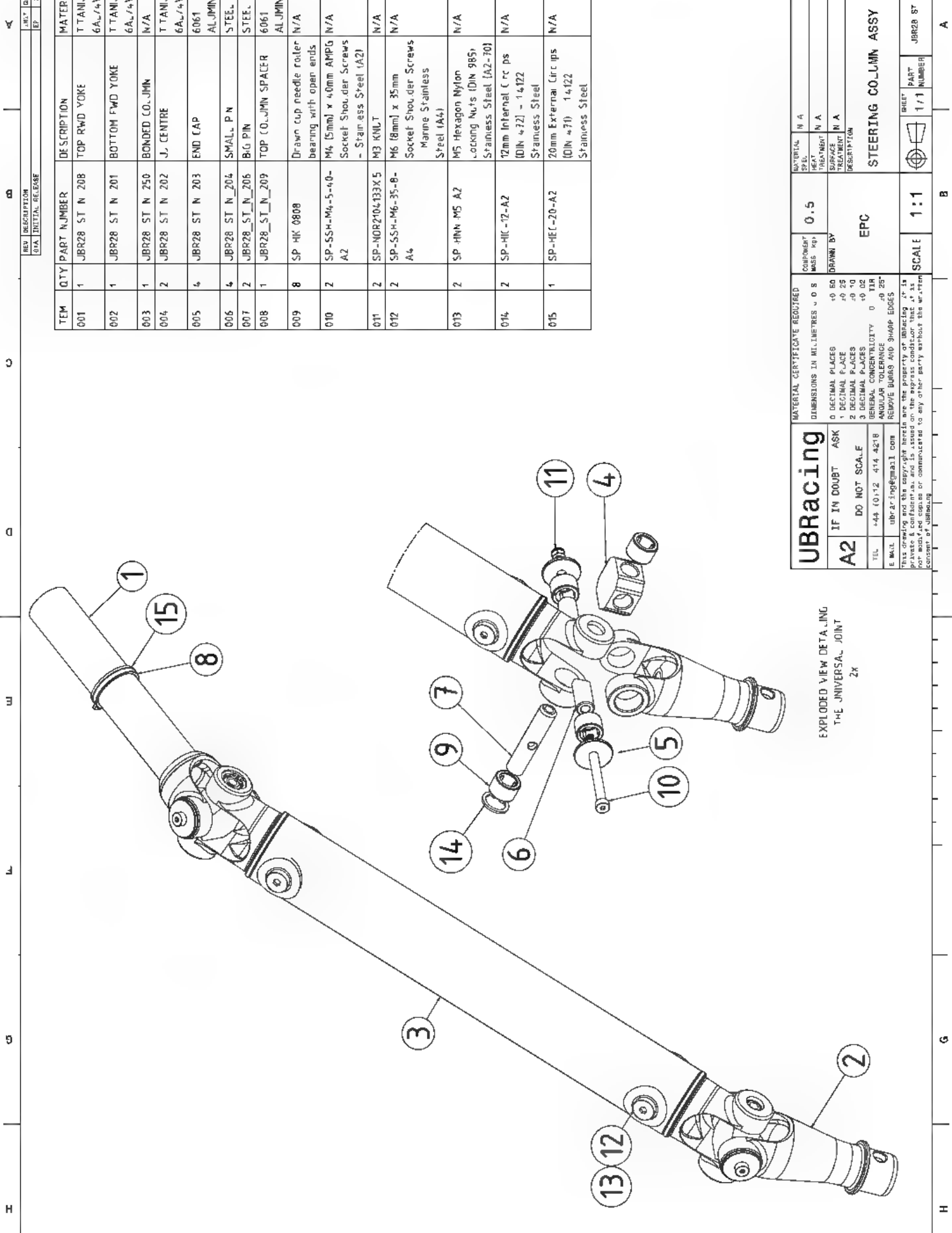
TREATMENT

DESCRIPTION

STEERING WHEEL CARBON ASSY

SHEET 1/1

PART NUMBER UBR28_ST_N_110_01A



REV DESCRIPTION
QTY INITIAL RELEASE

JR* DATE
EP 2 3 26

ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
001	1	JBR28 ST N 208	TOP RWD YOKE	T TANIUM 6AL/4V
002	1	JBR28 ST N 201	BOTTOM FWD YOKE	T TANIUM 6AL/4V
003	1	JBR28 ST N 250	BONDED CO. JMN	N/A
004	2	JBR28 ST N 202	J. CENTRE	T TANIUM 6AL/4V
005	4	JBR28 ST N 203	END CAP	6061 ALUMINIUM
006	4	JBR28 ST N 204	SMALL P N	STEEL A2
007	2	JBR28 ST N 206	BIG PIN	STEEL A2
008	1	JBR28 ST N 209	TOP CO. JMN SPACER	6061 ALUMINIUM
009	8	SP HK 0808	Drawn cup needle roller bearing with open ends	N/A
010	2	SP-SS-M4-5-40-A2	M4 (5mm) x 40mm AMPG Socket Shoulder Screws - Stainless Steel (A2)	N/A
011	2	SP-NDR210x133X 5	M3 KNL T	N/A
012	2	SP-SS-M6-35-8-A4	M6 (8mm) x 35mm Socket Shoulder Screws Marine Stainless Steel (A4)	N/A
013	2	SP-HNN M5 A2	M5 Hexagon Nylon Locking Nu's (DIN 985), Stainless Steel (A2-30)	N/A
014	2	SP-HIC-12-A2	12mm Internal (rc ps (DIN 472) - 14122 Stainless Steel	N/A
015	1	SP-HEC-20-A2	20mm External Circ ips (DIN 471) 14122 Stainless Steel	N/A

UBRacing
IF IN DOUBT ASK
A2 DO NOT SCALE
TEL +44 (0)12 414 4218
E MAIL ubracing@mail.com

MATERIAL CERTIFICATE REQUIRED	QUANTITY	MASS	TEMP	DRIVEN BY
DIMENSIONS IN MILLIMETRES ± 0.8	0.5			
0 DECIMAL PLACES ±0.50				
1 DECIMAL PLACES ±0.25				
2 DECIMAL PLACES ±0.10				
3 DECIMAL PLACES ±0.02				
GENERAL CONCENTRICITY 0 TIR				
ANGULAR TOLERANCE ±0.25°				
REMOVE BURRS AND SHARP EDGES				

EXPLODED VIEW DETAILING
THE UNIVERSAL JOINT
2x

STEERING COLUMN ASSY

SHEET	PART NUMBER	JBR28 ST N 200
1/1		

4

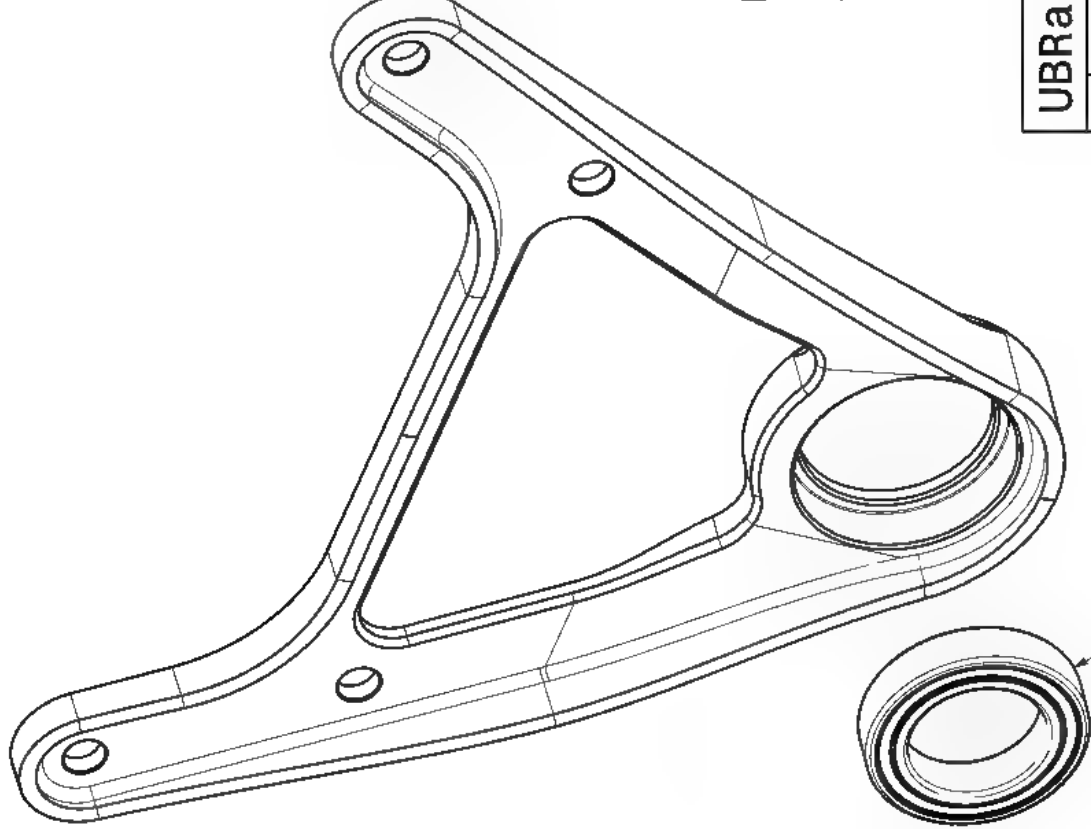
3

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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	EPC	1 8 2025

ITEM No.	Part No.	Description	QTY
001	UBR28_ST_N_302	RWD BRACKET	1
002	SP-61804	SKF LOW FRICTION BEARING	1



NOTES:

1. USE BEARING RETAINER LOCTITE 641 WHEN PRESSING BEARING (002) INTO THE BRACKET (001)

UBRacing

IF IN DOUBT	ASK
A4	DO NOT SCALE
TEL	+44 (0)121 414 4218
E-MAIL	ubracings@gmail.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES ± 0.8	
0 DECIMAL PLACES	± 0.50
1 DECIMAL PLACES	± 0.25
2 DECIMAL PLACES	± 0.10
3 DECIMAL PLACES	± 0.02
GENERAL CONCENTRICITY	0.1 TIR
ANGULAR TOLERANCE	$\pm 0.25^\circ$
REMOVE BURRS AND SHARP EDGES	

COMPONENT AND TAG	0.1
DRAWN BY	EPC

MATERIAL SPEC	N/A
HEAT TREATMENT	N/A
SURFACE FINISH	N/A
DESCRIPTION	RWD STEERING COLUMN BRACKET

SCALE	1:1	SHEET PART NUMBER	UBR28_ST_N_300
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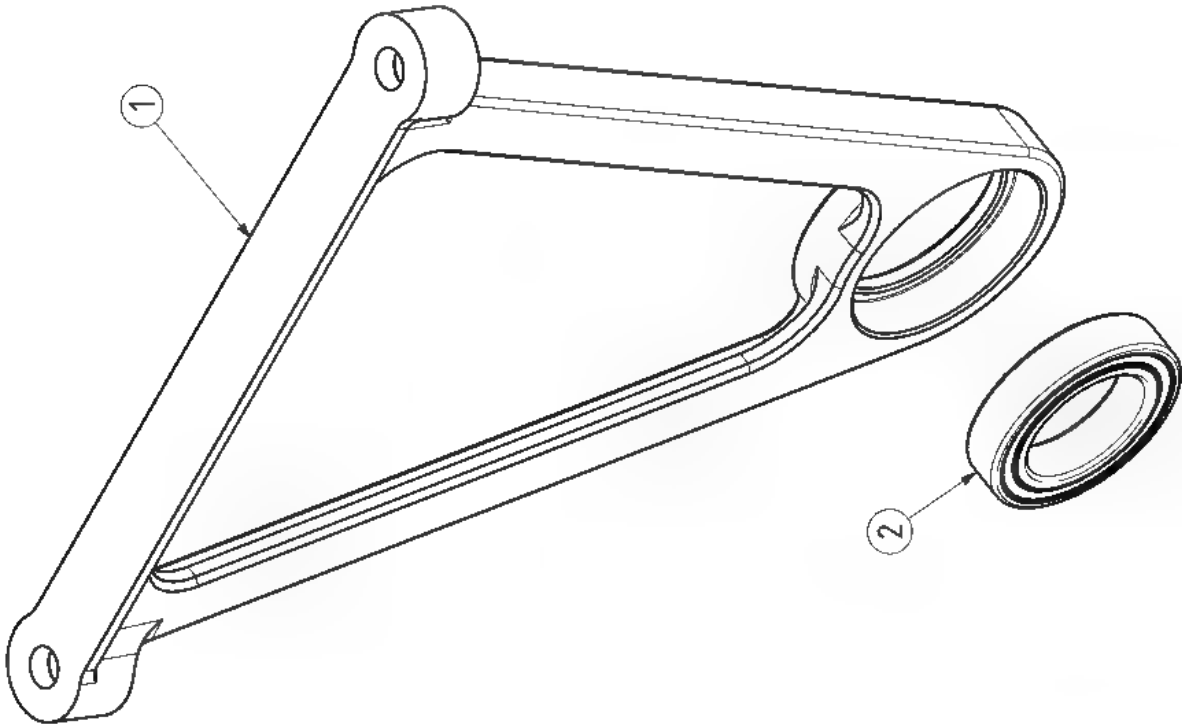
ITEM No.	Part No.	Description	QTY
001	UBR28_ST_N_502	FWD BRACKET	1
002	SP-61804	SKF LOW FRICTION BEARING	1

4

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1



NOTES:

1. USE BEARING RETAINER LOCTITE 641 WHEN PRESSING BEARING (002) INTO THE BRACKET (001)

UBRacing

IF IN DOUT	ASK
A4	DO NOT SCALE
TEL	+44 (0)121 414 4218
E-MAIL	ubraciengmail.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES	0.8
0 DECIMAL PLACES	±0.50
1 DECIMAL PLACES	±0.25
2 DECIMAL PLACES	±0.10
3 DECIMAL PLACES	±0.02
GENERAL CONCENTRICITY	0.1 TIR
ANGULAR TOLERANCE	±0.25°
REMOVE BURRS AND SHARP EDGES	

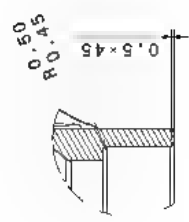
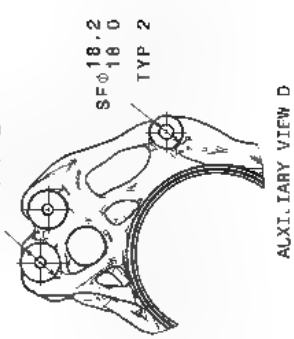
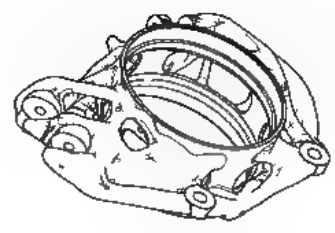
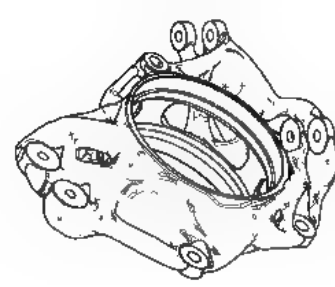
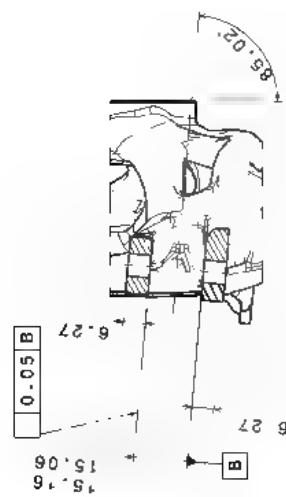
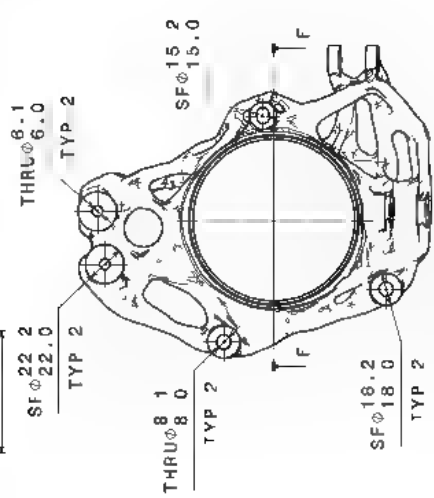
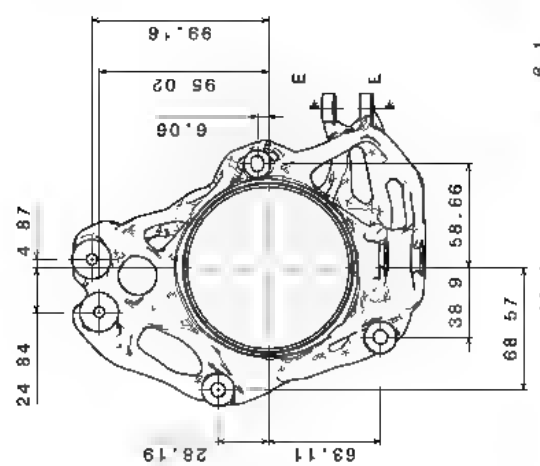
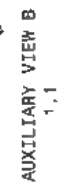
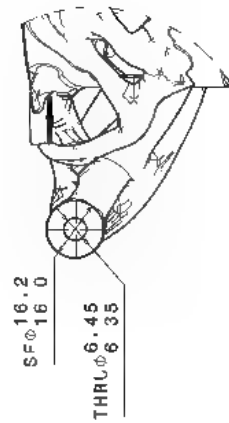
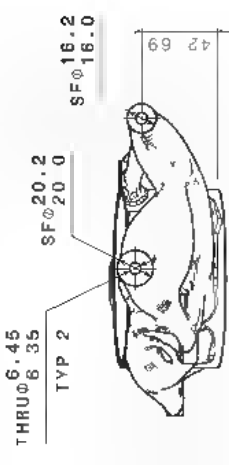
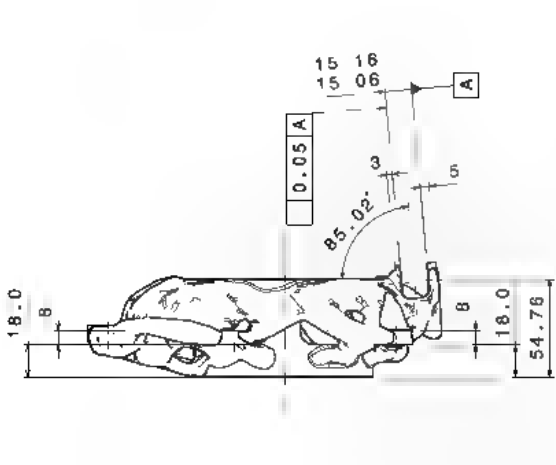
COMPONENT AND TOL	0.086
DRAWN BY	EPC


MATERIAL SPEC	N/A
HEAT TREATMENT	N/A
SURFACE FINISH	N/A
DESCRIPTION	FWD STEERING COLUMN BRACKET

SCALE	1:1	SHEET PART NUMBER	UBR28_ST_N_500
-------	-----	-------------------	----------------

D

A

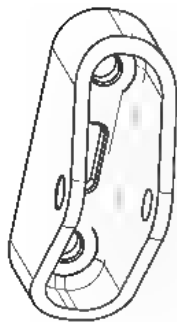
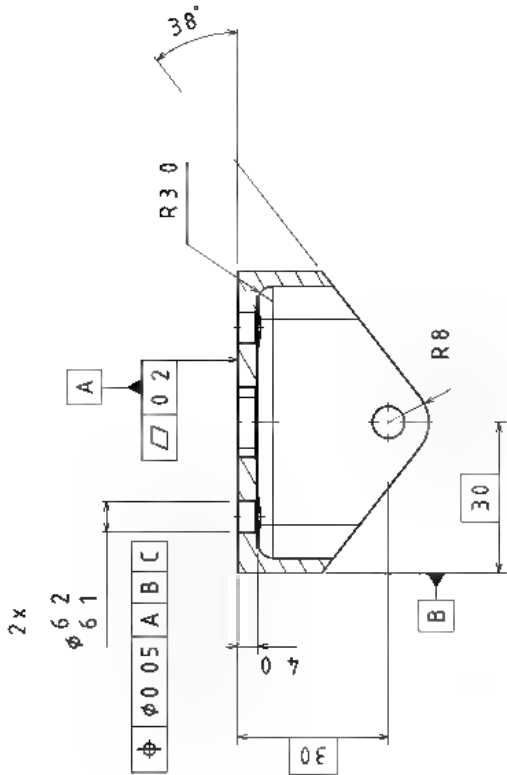


UBRACING		MATERIAL CERTIFICATE REQUIRED DIMENSIONS IN MILLIMETRES - 0.6		COMPONENT MASS kg	0.636	MATERIAL SPEC HEAT	ALSI DWG
IF IN DOUBT ASK		0 DECIMAL PLACES 1 DECIMAL PLACES 2 DECIMAL PLACES 3 DECIMAL PLACES	50 50 50 25 50 25 50 25	DRAWN BY		SURFACE TREATMENT	N/A
DO NOT SCALE		GENERAL CONCENTRICITY ANGULAR TOLERANCE	0.1 TIR 50 25	DESCRIPTION			
TEL +44 1012 414 42 8		FRONT UPRIGHTS MACHINED					
E MAIL: ufric@qbrunell.com		REMOVE BURRS AND SHARP EDGES IS PROCESSING THIS DRAWING IS A PRELIMINARY COPY BASED ON THE WORKS COORDINATION PLAN. IT IS NOT TO BE USED FOR CONSTRUCTION OR FOR ANY OTHER PARTY WITHOUT THE WRITTEN CONSENT OF UBRAIRING					
		SCALE 1:2				SHEET 1/1	PART NUMBER JBR28_OB_300 JBR28_OB_B 300



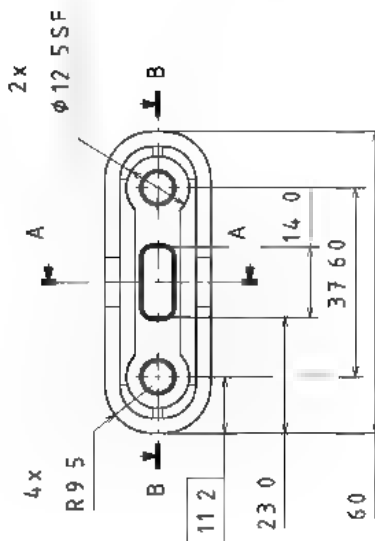
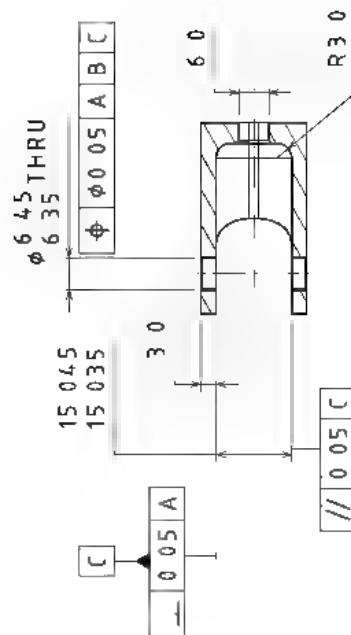
H G F E D C B A

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	59	08 0 2025



ISOMETRIC VIEW

SECTION B-B



NOTES:

- BREAK ALL SHARP EDGES
- FOR GENERAL TOLERANCES SEE TABLE
- REFER TO CAD
- STAMP DESCRIPTION ON BACK FACE (L FOR ORIGINAL, R FOR SYMOPP)

UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

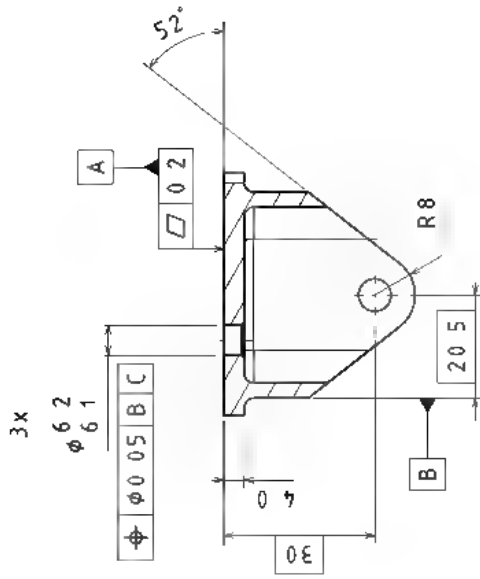
TEL: +44 (0)121 414 4218

E MAIL: ubracing@btinternet.com

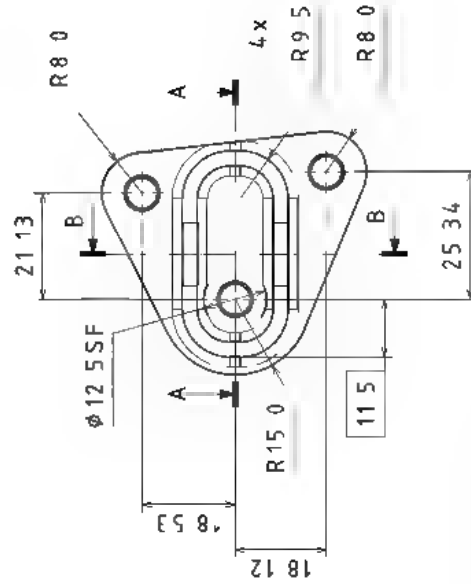
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MATERIAL	0.038	COMPONENT	0.038	ALUMINIUM 7075
SPEC		MASS		
REMARKS		BY		
PROCESS		SW		
TREATMENT		EC		
DESCRIPTION				
FJF L/R				
SCALE	1:1			
SHEET	1/1			
PART				
NUMBER				
UBR28_SJ 1 101 C38				

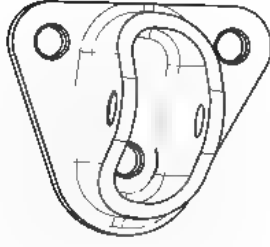
H G F E D C B A



SECTION A-A



SECTION B-B



ISOMETRIC VIEW

NOTES

- BREAK ALL SHARP EDGES
- FOR GENERAL TOLERANCES SEE TABLE
- REFER TO CAD
- STAMP DESCRIPTION ON BACK FACE (IL FOR ORIGINAL, R FOR SYMOPP)

UBRacing

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A3

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MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES	± 0.5
0 DECIMAL PLACES	± 0.50
1 DECIMAL PLACES	± 0.25
2 DECIMAL PLACES	± 0.10
3 DECIMAL PLACES	± 0.05
GENERAL CONCENTRICITY	0.1° MIN
ANGULAR TOLERANCE	± 0.20°

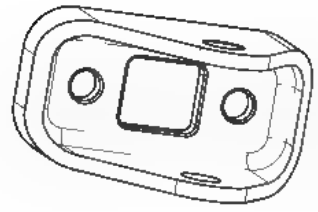
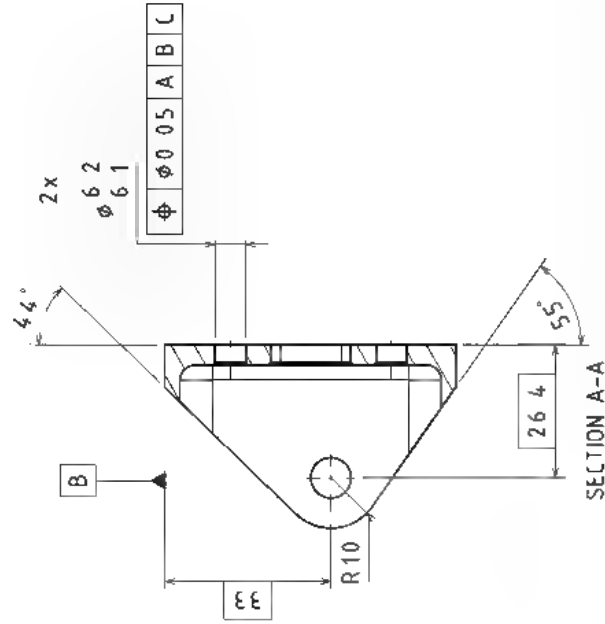
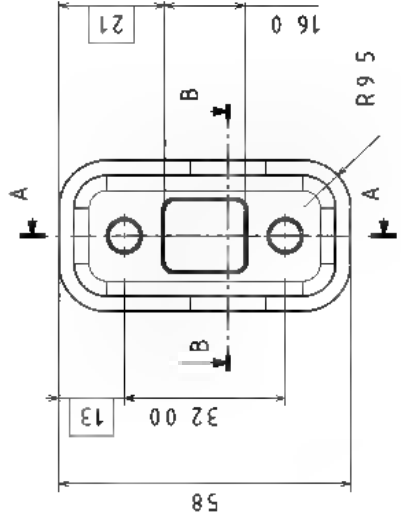
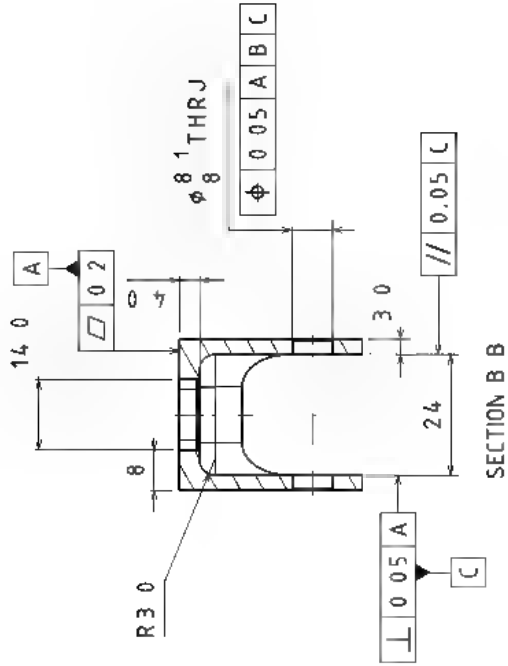
COMPONENT NAME	0.039
DRAWN BY	SW
APPROVED BY	EC

MATERIAL SPEC	ALUMINIUM 7075
REACTIVITY	N/A
SURFACE TREATMENT	N/A
DESIGNATION	FUR L/R

SCALE	1:1
SHEET	1/1
PART NUMBER	J8026 SU 1 '02 03A

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	SW	08.08.2005

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	59	08 0 2025

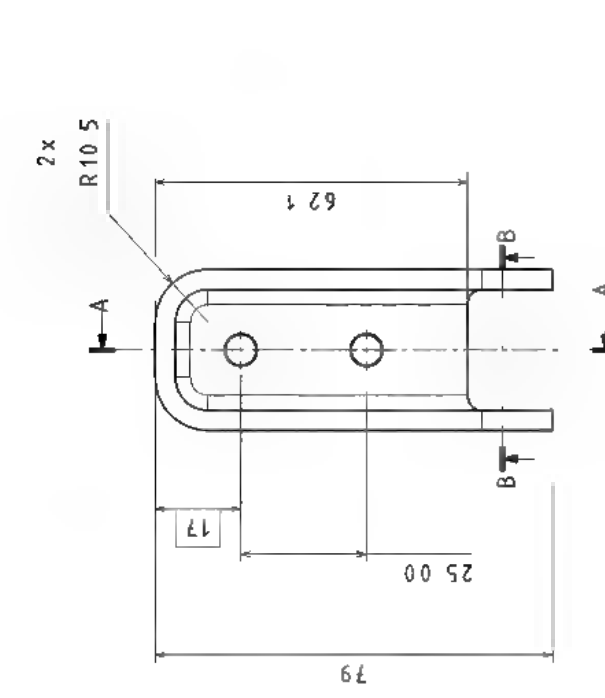
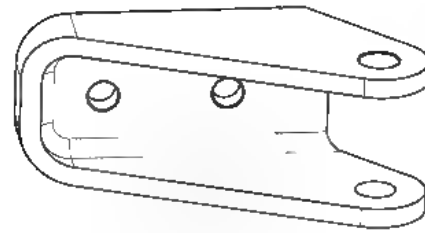
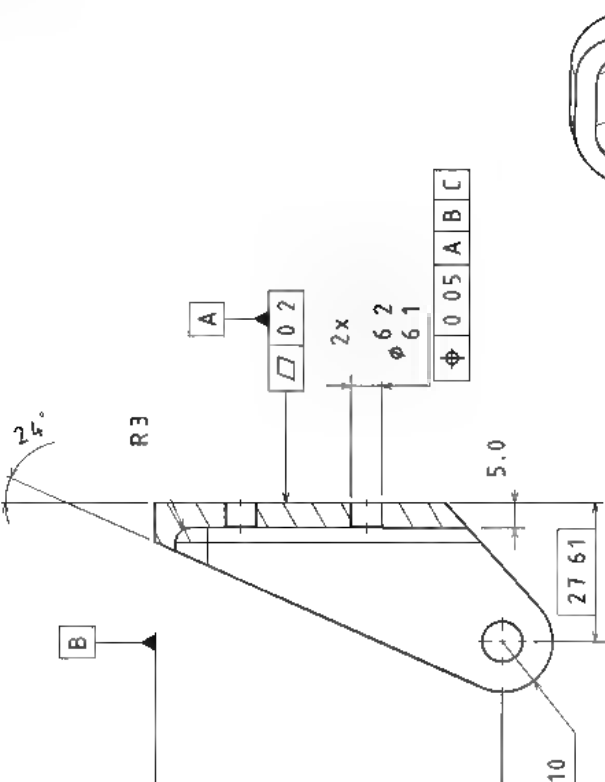


ISOMETRIC VIEW

NOTES

- BREAK ALL SHARP EDGES
- FOR GENERAL TOLERANCES SEE TABLE
- REFER TO CAD
- STAMP DESCRIPTION ON BACK FACE (L FOR ORIGINAL, R FOR SYMOPP)

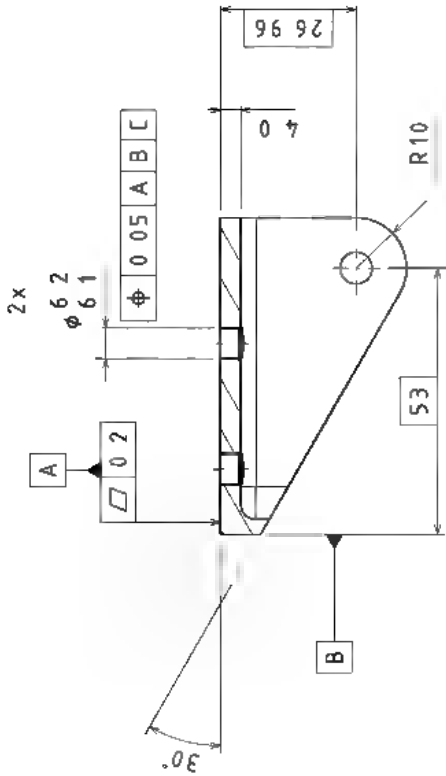
UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES u o s		MASS .kg		ALUMINIUM 7075	
A3		0 DECIMAL PLACES		DRAWN BY		0.037	
DO NOT SCALE		1 DECIMAL PLACES		SW		N A	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES		APPROVED BY		N A	
E MAIL ubracing@gmail.com		3 DECIMAL PLACES		EC		N A	
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		ANGULAR TOLERANCE		SCALE		1:1	
				SHEET		1/1	
				PART NUMBER		JBR23 SU 1 105 02A	



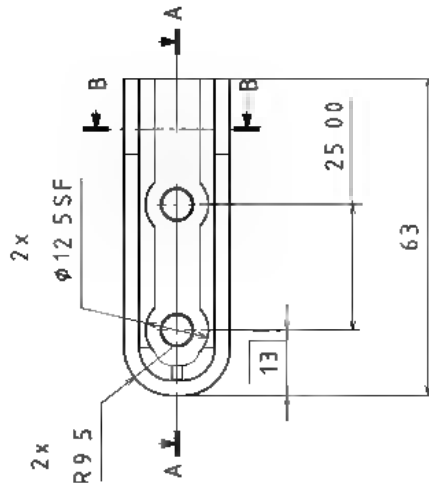
- NOTES
- BREAK ALL SHARP EDGES
 - FOR GENERAL TOLERANCES SEE TABLE
 - REFER TO CAD
 - STAMP DESCRIPTION ON BACK FACE (L FOR ORIGINAL, R FOR SYMOPP)

UBRacing		MATERIAL IDENTIFICATION REQUIRED		COMPONENT		MATERIAL	
A3	IF IN DOUBT - ASK	DIMENSIONS IN MILLIMETRES ± 0.5		MASS - kg	0.055	HEAT TREATMENT	ALUMINIUM 7075
		0 DECIMAL PLACES ±0.50					
		1 DECIMAL PLACES ±0.25					
	DO NOT SCALE	2 DECIMAL PLACES ±0.10		DRAWN BY	SW	SURFACE TREATMENT	N/A
		3 DECIMAL PLACES ±0.02					
		GENERAL CONCENTRICITY 0.1 TIR					
TEL +44 (0)121 414 4218	ANGULAR TOLERANCE ±0.25°		APPROVED BY		RD L/R		
E-MAIL ubracing@qma.l.com			EC				
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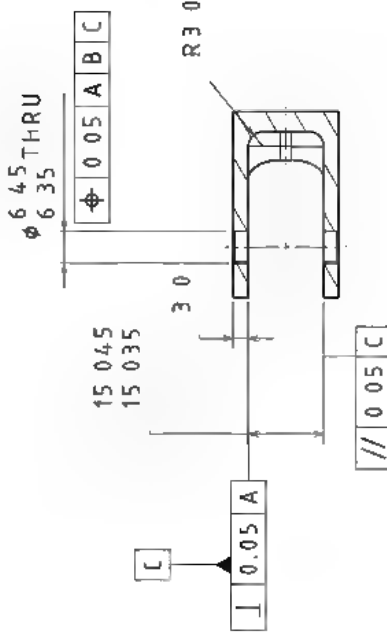
REV	DESCRIPTION	INT	DATE
0.0	INITIAL RELEASE	SW	08/10/2026



SECTION A-A



ISOMETRIC VIEW

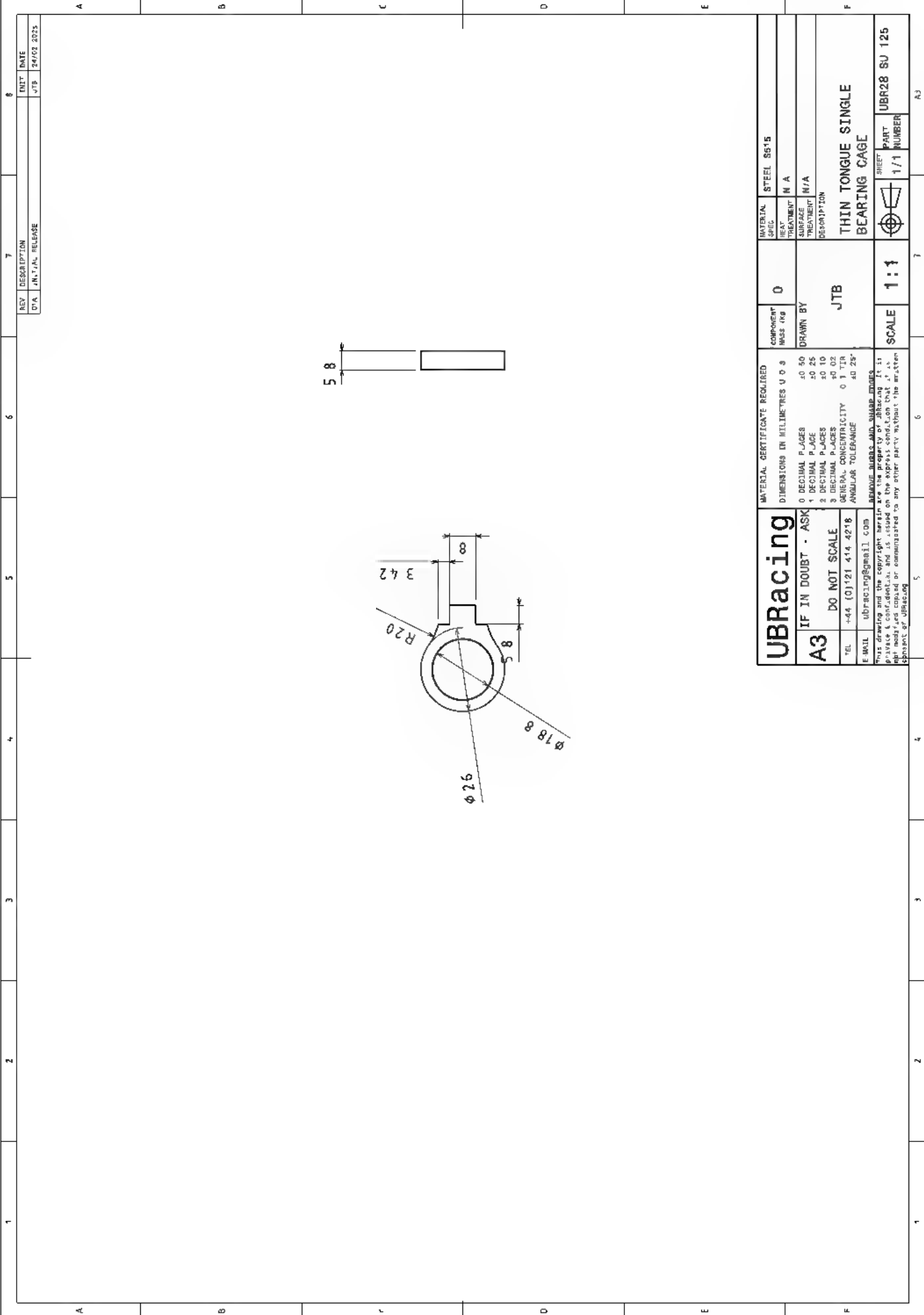


SECTION B-B

NOTES

- BREAK ALL SHARP EDGES
- FOR GENERAL TOLERANCES SEE TABLE
- REFER TO CAD
- STAMP DESCRIPTION ON BACK FACE (L FOR ORIGINAL, R FOR SYMOPP)

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES		MASS		SPEC	
A3		0 DECIMAL PLACES		DRAWN BY		0.04	
DO NOT SCALE		1 DECIMAL PLACES		SW		ALUMINIUM 7075	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES		APPROVED BY		REACTIVITY	
E MAIL ubracing@qma.l.com		3 DECIMAL PLACES		EC		SURFACE	
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		ANGULAR TOLERANCE		1:1		DESCRIPTION	
				SCALE		SHEET	
				1:1		1/1	
						PART	
						NUMBER	
						JBR28_SU_L_201_0308	



UBRacing

IF IN DOUBT - ASK

A3

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MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES U O S

0 DECIMAL PLACES ±0.50

1 DECIMAL PLACES ±0.25

2 DECIMAL PLACES ±0.10

3 DECIMAL PLACES ±0.02

GENERAL CONCENTRICITY 0.1 TIR

ANGULAR TOLERANCE ±0.25°

COMPONENT MASS /kg

DRAWN BY

JTB

MATERIAL SPEC

STEEL S515

TREATMENT

N/A

FINISH

N/A

DESCRIPTION

THIN TONGUE SINGLE BEARING CAGE

SCALE

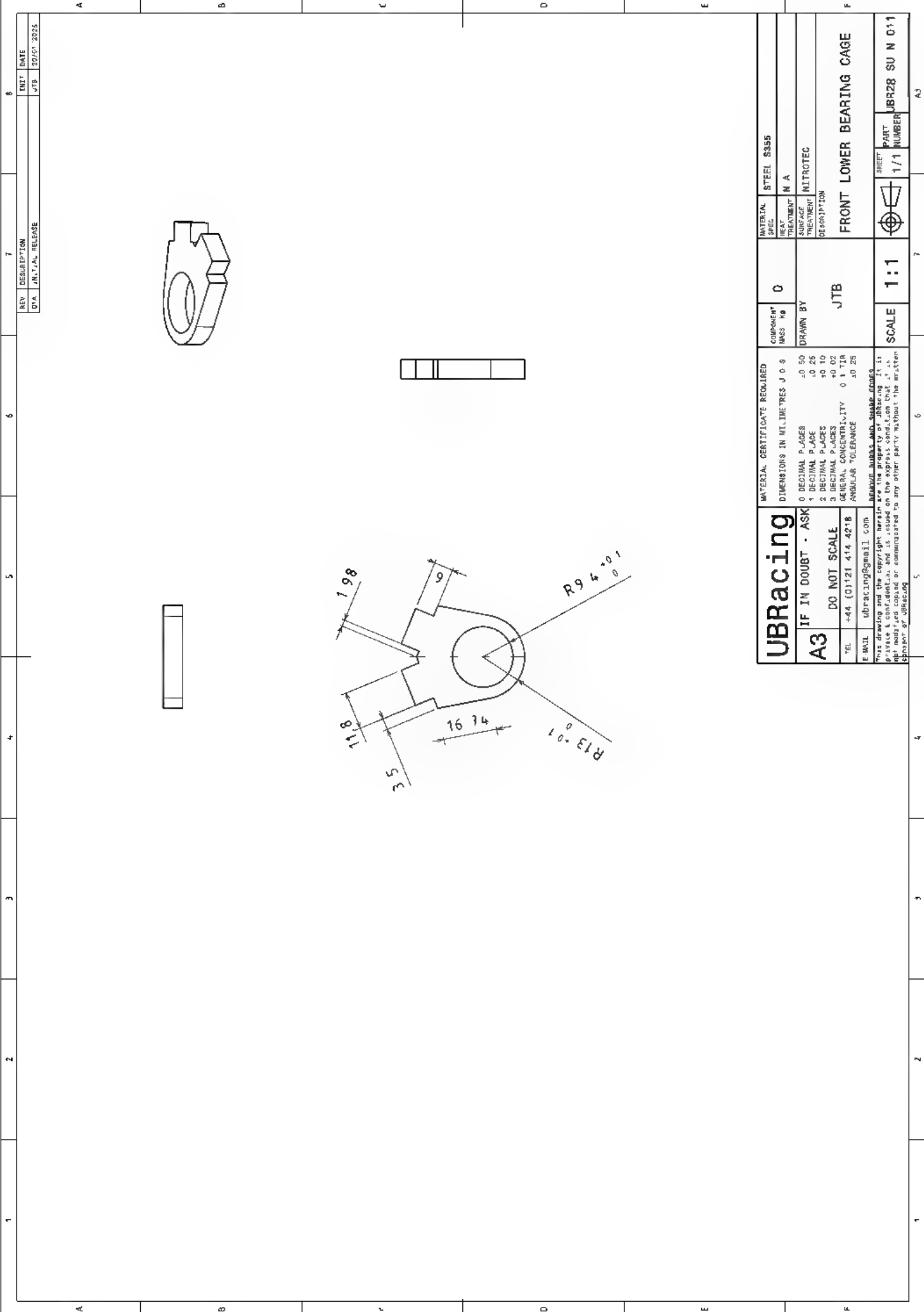
1:1

SHEET

1/1

PART NUMBER

UBR28 SU 125



UBRacing

IF IN DOUBT - ASK

A3

DO NOT SCALE

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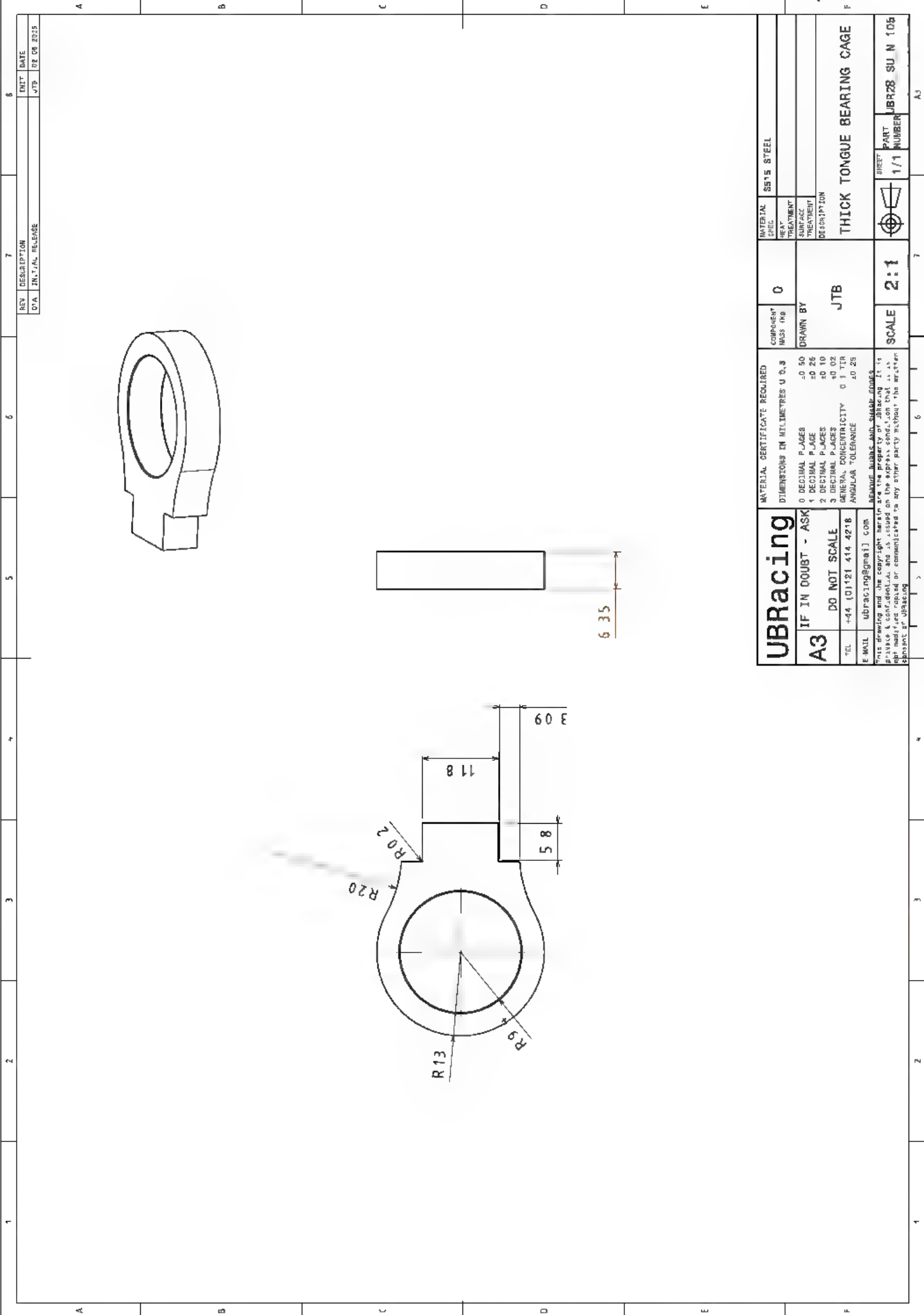
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MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES	0 0 0 0
0 DECIMAL PLACES	±0.50
1 DECIMAL PLACES	±0.25
2 DECIMAL PLACES	±0.10
3 DECIMAL PLACES	±0.02
GENERAL CONCENTRICITY	0.1 TIR
ANGULAR TOLERANCE	±0.25

COMPONENT MASS	kg
DRAWN BY	JTB

MATERIAL SPEC	STEEL S355
TREATMENT	N A
FINISH	NITROTEC
DESCRIPTION	FRONT LOWER BEARING CAGE

SHEET	1/1
PART NUMBER	UBR28 SU N 011



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES U 0.3		0		S215 STEEL	
A3		0 DECIMAL PLACES ±0.50		DRAWN BY		HEAT	
DO NOT SCALE		1 DECIMAL PLACES ±0.25		JTB		TREATMENT	
TEL +44 (0)121 414 4218		2 DECIMAL PLACES ±0.10				FINISH	
E-MAIL ubracing@gmail.com		3 DECIMAL PLACES ±0.02				DESCRIPTION	
		GENERAL CONCENTRICITY 0.1 TIR				THICK TONGUE BEARING CAGE	
		ANGULAR TOLERANCE ±0.25					
		This drawing and the copyright herein are the property of UBRacing. It is private & confidential and is issued on the express condition that it is not to be used, copied or communicated to any other party without the written consent of UBRacing.		SCALE		1/1	
				2:1		PART NUMBER	
						JTB28 SU N 105	

A

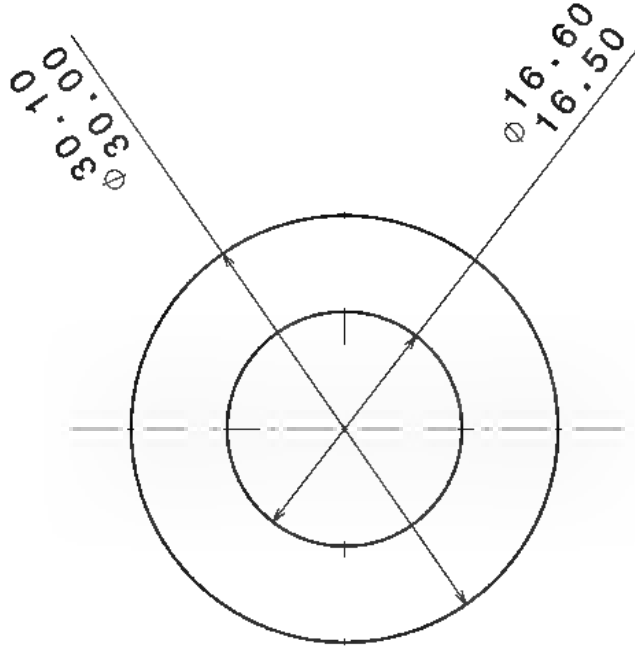
B

C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	EPC	02 06 2025

5.10
5.00



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT	0.001	MATERIAL	ALUMINIUM
A4	IF IN DOUBT	ASK	DIMENSIONS IN MILLIMETRES ± 0.5	WGT. / Kg		HEAT TREATMENT	N A
	DO NOT SCALE		0 DECIMAL PLACES ± 0.50	DRAWN BY		SURFACE FINISH	N A
	TEL	+44 (0)121 414 4218	1 DECIMAL PLACES ± 0.25			DESIGN	PYTH
	E-MAIL	ubracing@ubrall.com	2 DECIMAL PLACES ± 0.10			TIE ROD SPACER	
			3 DECIMAL PLACES ± 0.02				
			GENERAL CONCENTRICITY ± 0.25				
			ANGULAR TOLERANCE ± 0.25				
			REMOVE BURRS AND SHARP EDGES				
		This drawing and the copyright herein are the property of UBRacing Ltd. It is private & confidential, and is issued on the express condition that it is not modified, copied or communicated to any other party without the written consent of UBRacing		SCALE	2:1	SHEET	1 / 1
						PART	UBR23_Sc_N_125

A

D

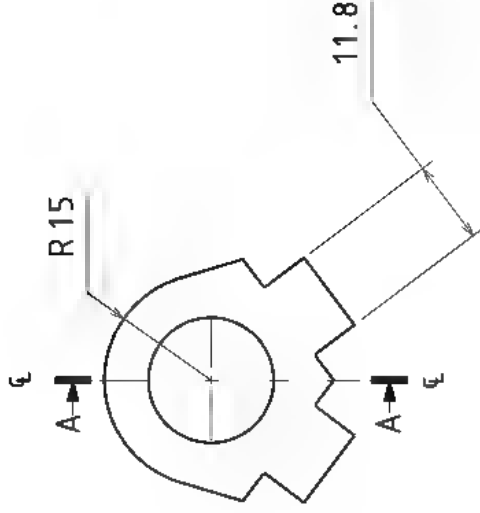
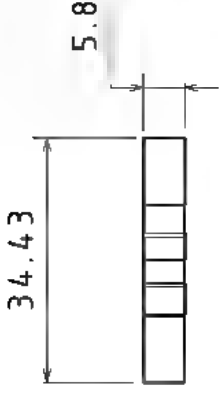
A

B

C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	SW	28/01/2025



SECTION A-A

UBRacing

IF IN DOUBT ASK

A4

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MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.03		S515 SHEET STEEL	
DIMENSIONS IN MILLIMETRES ± 0.8		DRAWN BY		SW		N/A	
0 DECIMAL PLACES ± 0.50		SURFACE TREATMENT		N/A		N/A	
1 DECIMAL PLACES ± 0.25		DESCRIPTION		REAR UPPER OB BEARING CAGE		1/1	
2 DECIMAL PLACES ± 0.10		SCALE		1:1		UBR28 SU 212	
3 DECIMAL PLACES ± 0.02		SHEET PART		1/1		NUMBER	
GENERAL CONCENTRICITY 0.1 TIR		SCALE		1:1		UBR28 SU 212	
ANGULAR TOLERANCE ± 0.25°		SHEET PART		1/1		NUMBER	
REMOVE BURRS AND SHARP EDGES		SCALE		1:1		UBR28 SU 212	

A

D

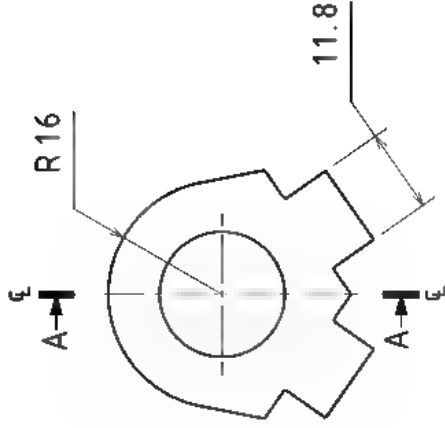
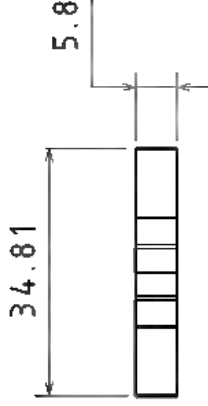
A

B

C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	SW	28/01/2025



SECTION A-A

UBRacing

IF IN DOUBT	ASK
A4	DO NOT SCALE
TEL	+44 (0)121 414 4218
E-MAIL	ubracings@gmail.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES ± 0.8	
0 DECIMAL PLACES	± 0.50
1 DECIMAL PLACES	± 0.25
2 DECIMAL PLACES	± 0.10
3 DECIMAL PLACES	± 0.02
GENERAL CONCENTRICITY	0.1 TIR
ANGULAR TOLERANCE	$\pm 0.25^\circ$
REMOVE BURRS AND SHARP EDGES	

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MATERIAL SPEC	0.03	COMPONENT NO. 001	0.03	S515 SHEET STEEL
REWORK		DRAWN BY		N/A
SURFACE FINISH		SW		N/A
DESCRIPTION				
REAR LOWER OB BEARING CAGE				
SCALE 1:1				
SHEET PART NUMBER 1/1				
UBR28 SU 222				

A

D

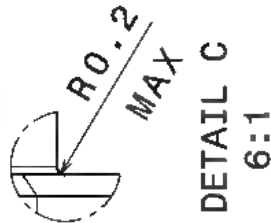
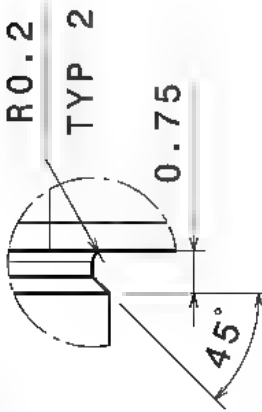
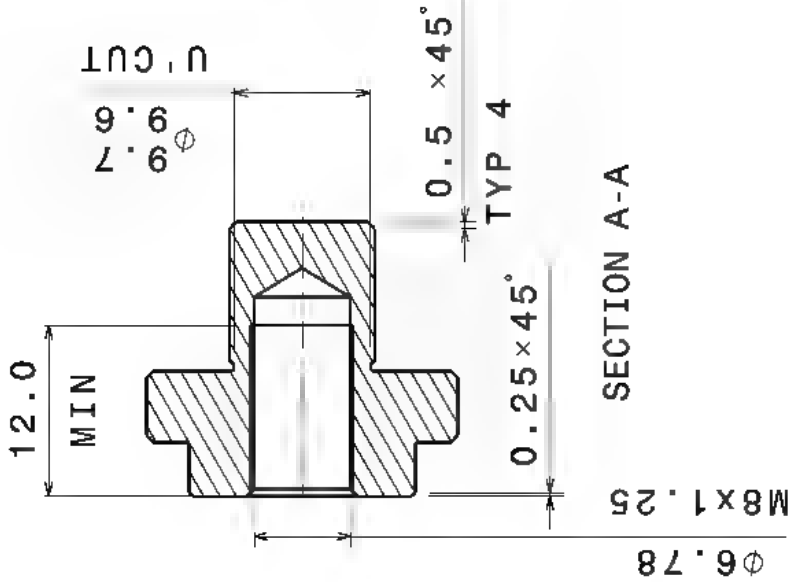
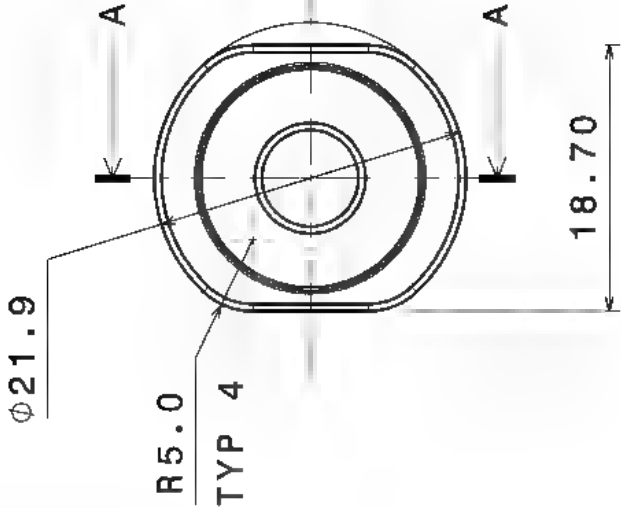
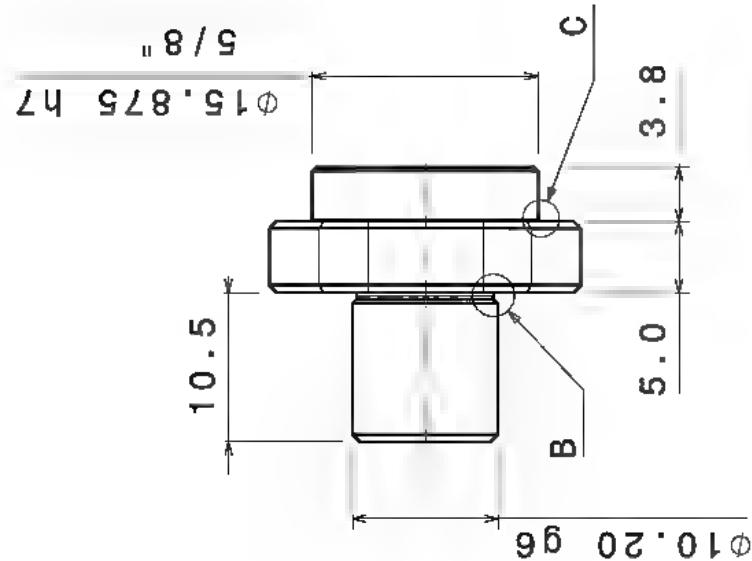
A

B

C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	EPC	13/03/2025



DETAIL B
8:1

DETAIL C
6:1

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		T45 STEEL	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES		0.022		N/A	
A4	DO NOT SCALE	0 DECIMAL PLACES ±0.50		DRAWN BY		N/A	
TEL	+44 (0)121 414 4218	1 DECIMAL PLACES ±0.25		EPC		N/A	
E-MAIL	ub-racing@uball.com	2 DECIMAL PLACES ±0.10		DESIGN BY		N/A	
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		ANGULAR TOLERANCE ±0.25		SHEET		1/1	
		REMOVE BURRS AND SHARP EDGES		PART		UBR28_Su_N_235	

NOTES:

1. TEST FIT IN 1/2" 18 SWG TUBE
2. TEST FIT INTO DAMPER FLANGE

A

D

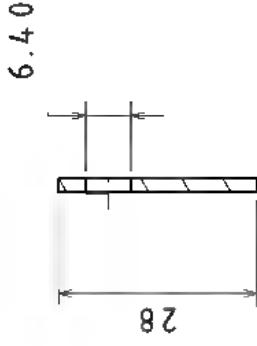
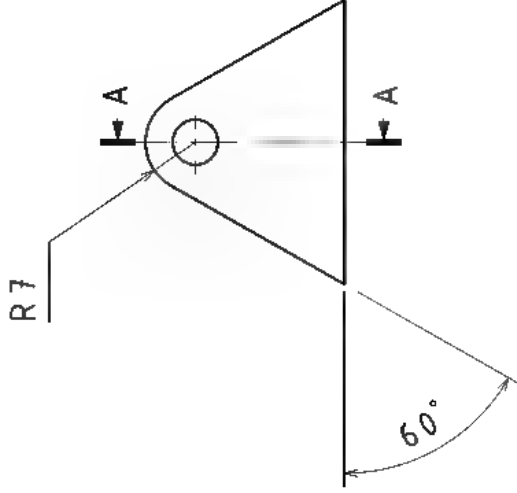
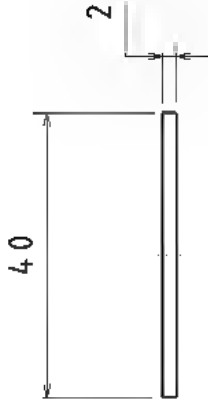
A

B

C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	SW	28/01/2025



SECTION A-A

UBRacing

IF IN DOUBT ASK

A4 DO NOT SCALE

TEL +44 (0)121 414 4218

E-MAIL ubracing@gmail.com

MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES ± 0.8

0 DECIMAL PLACES ± 0.50

1 DECIMAL PLACES ± 0.25

2 DECIMAL PLACES ± 0.10

3 DECIMAL PLACES ± 0.02

GENERAL CONCENTRICITY 0 - 1 TIR

ANGULAR TOLERANCE $\pm 0.25^\circ$

REMOVE BURRS AND SHARP EDGES

COMPONENT NO. 019

DRAWN BY

SW

MATERIAL SPECIFICATION

5515 SHEET STEEL

FINISH N/A

SURFACE TREATMENT N/A

DESCRIPTION

DAMPER ROD TAB

SCALE

1:1

SHEET PART

1/1

NUMBER

JBR23 SU N 125

A

A

B

C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	SW	28/01/2025

4

3

2

1

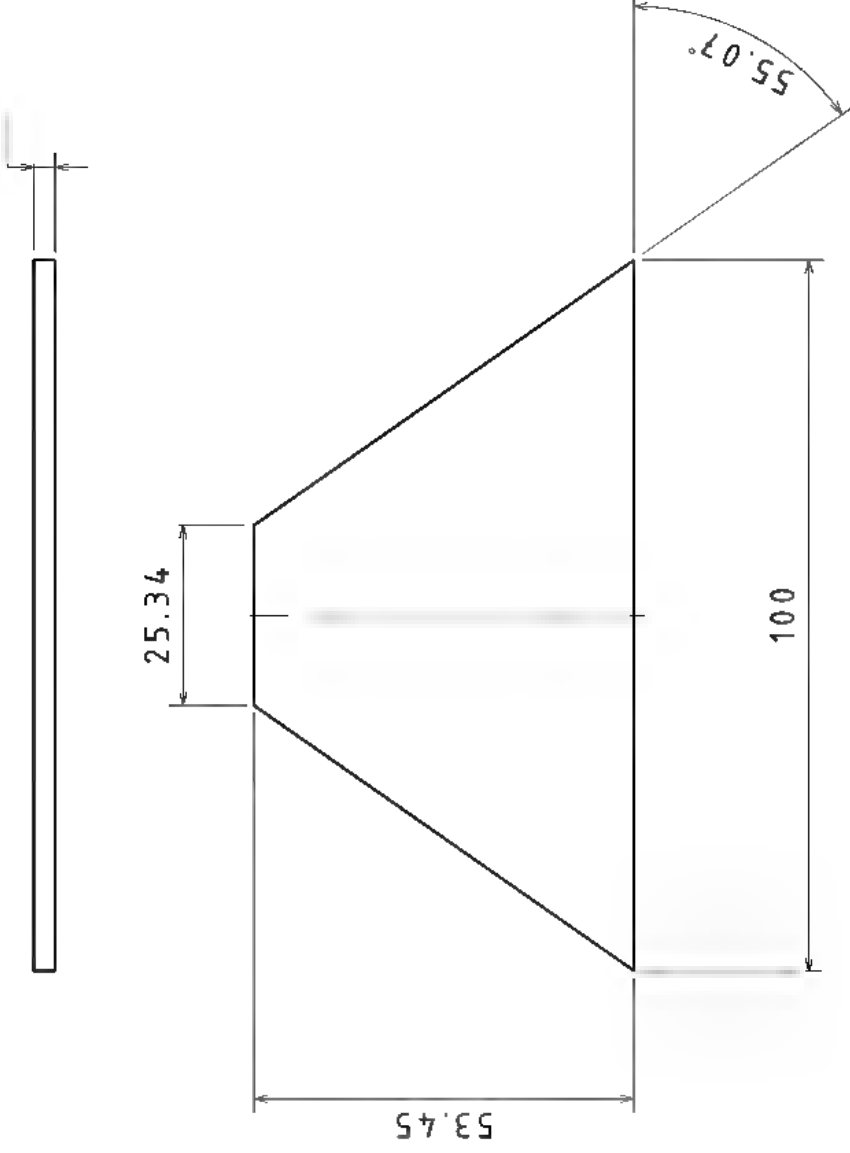
4

3

2

1

3



UBRacing

IF IN DOUBT	ASK
A4	DO NOT SCALE
TEL	+44 (0)121 414 4218
E-MAIL	ubracing@gmail.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES ± 0.8	
0 DECIMAL PLACES	± 0.50
1 DECIMAL PLACES	± 0.25
2 DECIMAL PLACES	± 0.10
3 DECIMAL PLACES	± 0.02
GENERAL CONCENTRICITY	0 - 1 TIR
ANGULAR TOLERANCE	$\pm 0.25^\circ$
REMOVE BURRS AND SHARP EDGES	

COMPONENT NO. 050	0.050
DRAWN BY	SW

MATERIAL SPEC	S515 SHEET STEEL
HEAT TREATMENT	N A
SURFACE FINISH	N A
DESCRIPTION	REAR LOWER GUSSET

SHEET PART	UBR28 SU 225
1/1 NUMBER	

SCALE	1:1
-------	-----

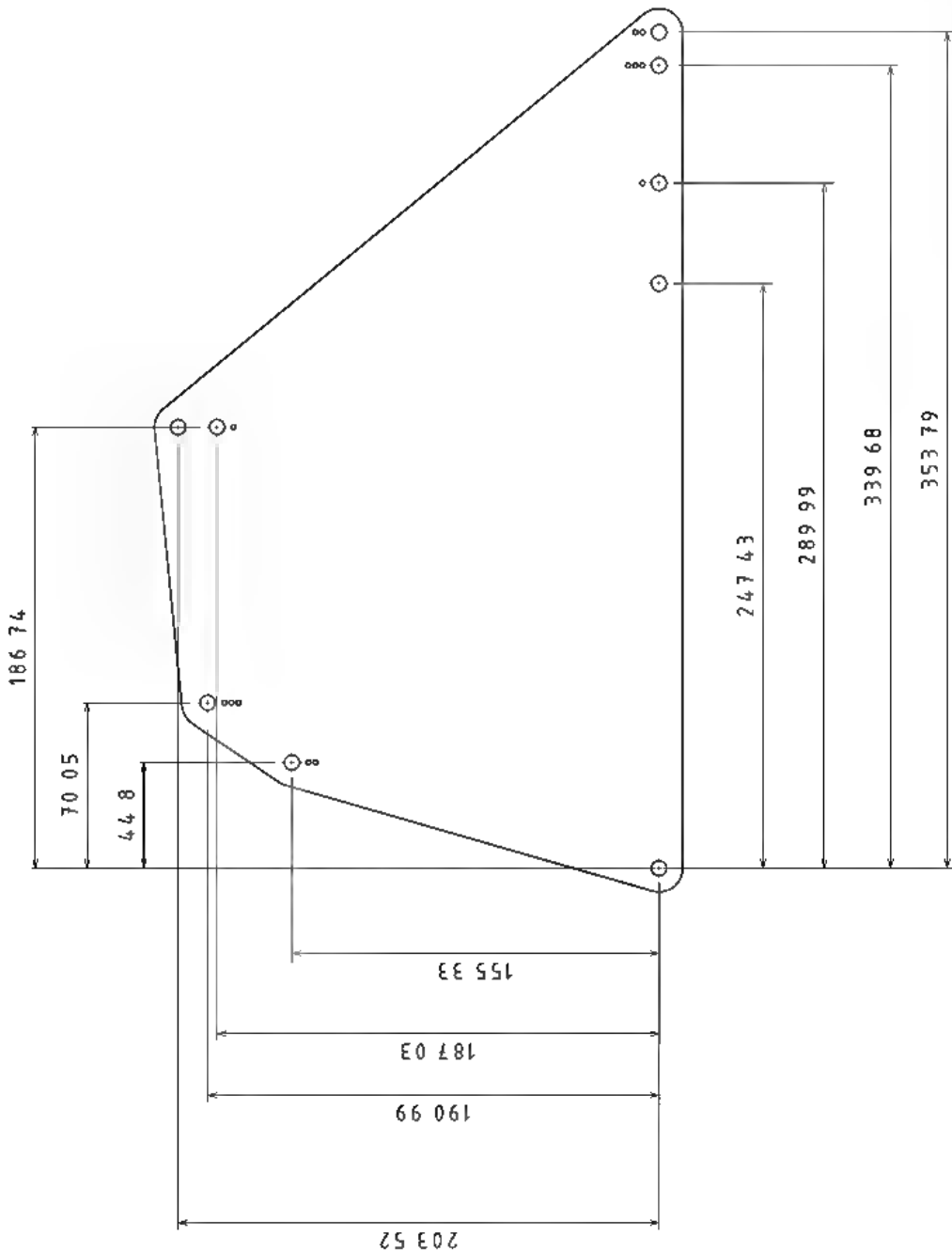
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D

A

H G F E D C B A

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE	SW	20 0 2024



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT - ASK		DIMENSIONS IN MILLIMETRES ± 0.5		MASS .Kg		SPEC	
A3		0 DECIMAL PLACES ±0.50		DRAWN BY		REAT	
		1 DECIMAL PLACES ±0.25		SW		TREATMENT	
		2 DECIMAL PLACES ±0.10				SURFACE	
		3 DECIMAL PLACES ±0.05				TREATMENT	
		GENERAL CONCENTRICITY 0 - 0.10				DESCR. P. / ON	
		ANGULAR TOLERANCE ±0.25°				WISHBONE JIG	
TEL +44 (0)121 414 4218		REMOVE BURRS AND SHARP EDGES		SCALE 1:1		SHEET 1/1	
E MAIL jbracing@gmail.com		This drawing and the copyright herein are the property of UBRacing. It is private & confidential and is issued on the express condition that it is not reproduced or communicated to any other party without the written consent of UBRacing.		PART NUMBER		UBR28 SW_N 999	

H G F E D C B A

A

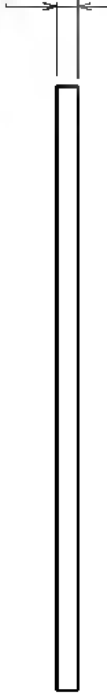
B

C

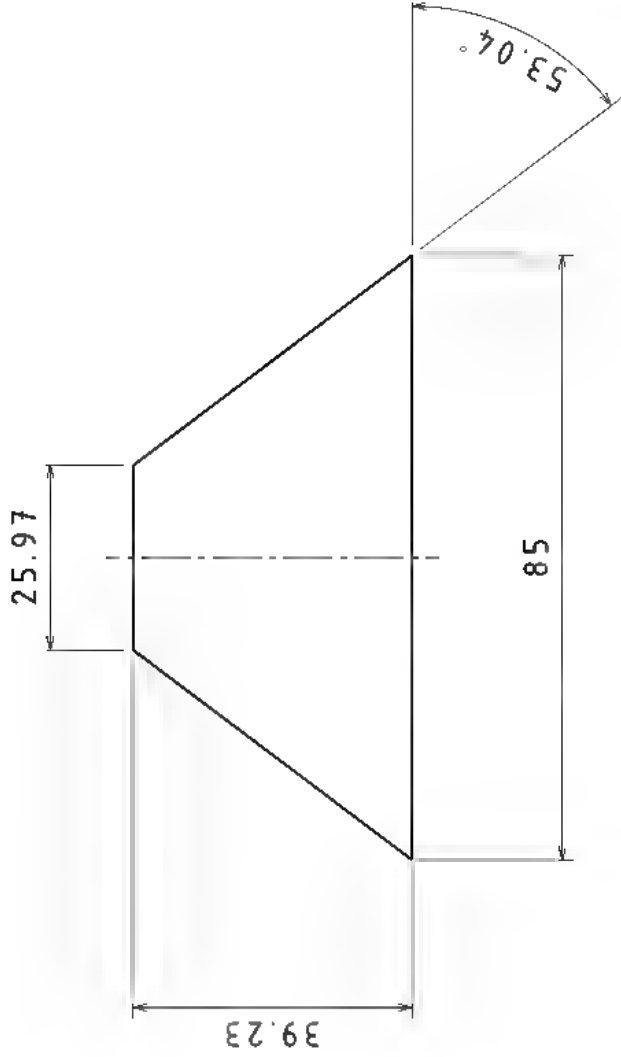
D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	SW	28/01/2025

3



25.97



39.23

85

53.04°

UBRacing

IF IN DOUBT	ASK
A4	DO NOT SCALE
TEL	+44 (0)121 414 4218
E-MAIL	ubracings@gmail.com

MATERIAL CERTIFICATE REQUIRED	
DIMENSIONS IN MILLIMETRES ± 0.8	
0 DECIMAL PLACES	± 0.50
1 DECIMAL PLACES	± 0.25
2 DECIMAL PLACES	± 0.10
3 DECIMAL PLACES	± 0.02
GENERAL CONCENTRICITY	0 - 1 TIR
ANGULAR TOLERANCE	$\pm 0.25^\circ$
REMOVE BURRS AND SHARP EDGES	

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MATERIAL SPEC	0.050	COMPONENT NO. 001	0.050	MATERIAL SPEC
REAR TREATMENT		DRAWN BY		N A
SURFACE FINISH		SW		N A
DESCRIPTION				
REAR UPPER GUSSET				

SHEET PART	UBR28 SU 215
1/1	NUMBER

A

D

A

B

C

D

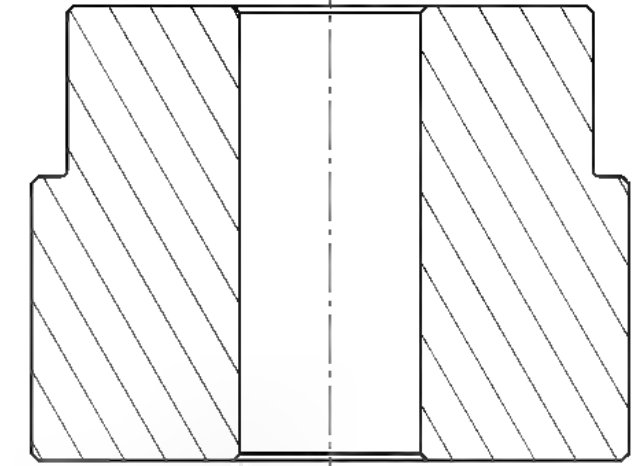
REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	EPC	27 Oct 2022

4

3

2

1



0.25 x 45°
TYP 2

18.50
18.45

Ø 21

A

A

SECTION A-A
SCALE 4:1

0.25 x 45°
TYP 3

R0.2



10.00

6.0

UBRacing

IF IN DOUBT ASK

DO NOT SCALE

TEL +44 (0)121 414 4218

E MAIL ubracing@gmail.com

MATERIAL	CERTIFICATE REQUIRED	COMPONENT	0.012	MATERIAL	8065 ALUMINIUM
0 DECIMAL PLACES	DIMENSIONS IN MILLIMETRES J O S	NOSS (N/A)		TEST PREP	N A
1 DECIMAL PLACES	±0.50	DRAWN BY		SURFACE FINISH	N A
2 DECIMAL PLACES	±0.25			DESCRIPTION	
3 DECIMAL PLACES	±0.10				
GENERAL CONCENTRICITY	0.1 TIR				
ANGULAR TOLERANCE	±0.25				

REMOVE BURRS AND SHARP EDGES

NOTE: TEST FIT BEARING CAGE INTO
LASER CUT BLANK



SCALE 4:1

DRAWN BY EPC

DESCRIPTION WISHBONE JIG CAGE SPACER

COMPONENT NOSS (N/A)

TEST PREP N A

SURFACE FINISH N A

MATERIAL 8065 ALUMINIUM

DESCRIPTION

TEST PREP N A

SURFACE FINISH N A

MATERIAL 8065 ALUMINIUM

DESCRIPTION

COMPONENT NOSS (N/A)

TEST PREP N A

SURFACE FINISH N A

MATERIAL 8065 ALUMINIUM

DESCRIPTION

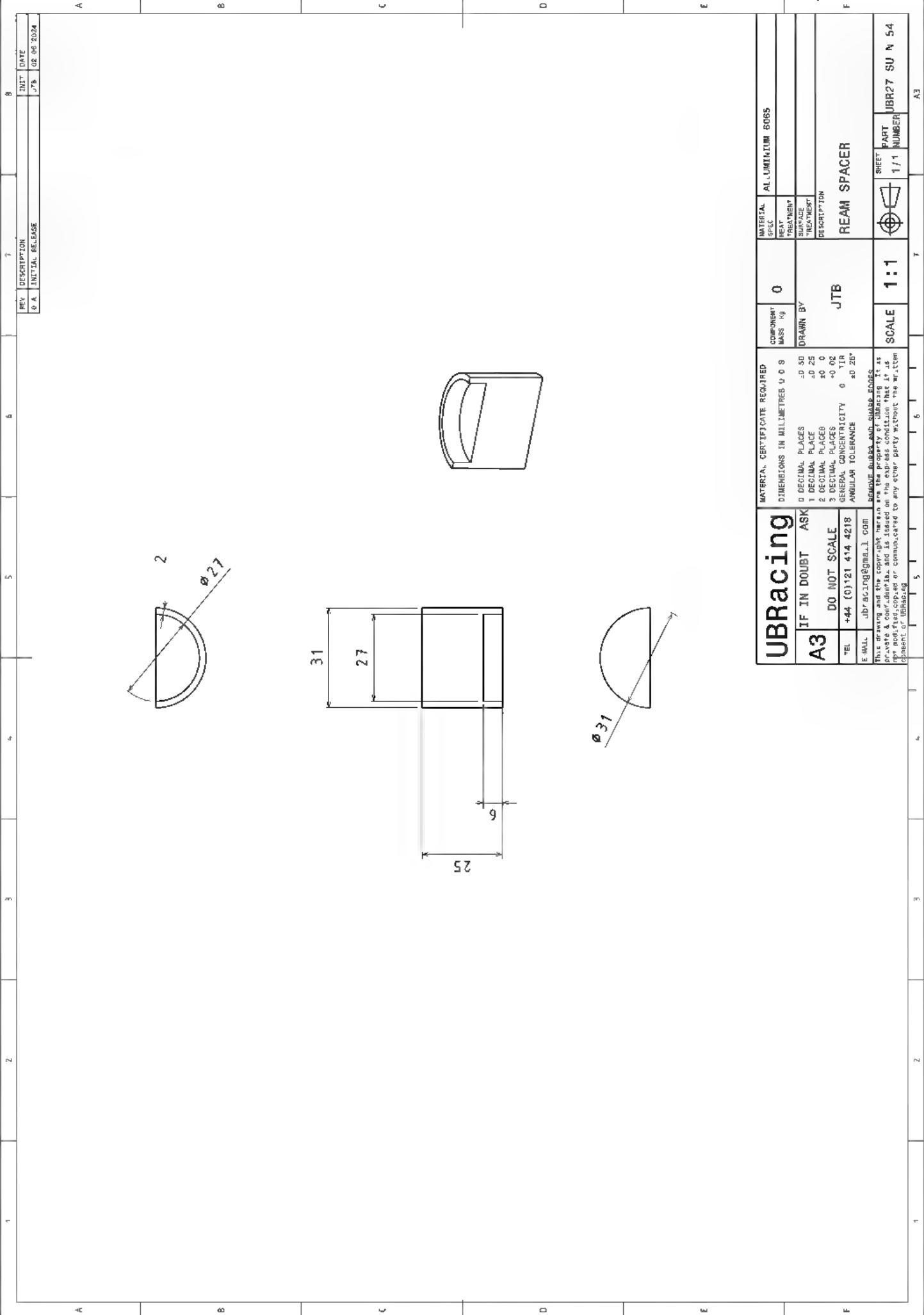
TEST PREP N A

SURFACE FINISH N A

MATERIAL 8065 ALUMINIUM

A

D



UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		MATERIAL	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES U O S		MASS kg		ALUMINIUM 6065	
A3	DO NOT SCALE	0 DECIMAL PLACES		DRAWN BY	JTB	REAT	
		1 DECIMAL PLACES				TREATMENT	
		2 DECIMAL PLACES				SURFACE	
		3 DECIMAL PLACES				REATREAT	
TEL +44 (0)121 414 4218		GENERAL CONCENTRICITY 0 +0.02		DESCRIPTION			
E-MAIL jbracing@gmail.com		ANGULAR TOLERANCE +0.25°		REAM SPACER			
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						PART NUMBER JTB27 SU N 54	
						7	
						A3	

Ø 12.7
18 SWG



219.42
(A)

- NOTES:
- 0.5" OD, 18SWG TUBE
 - HACKSAW OVERSIZED THEN TURN ON LATHE
 - DEBUR POST MACHINING

PART NUMBER	LENGTH (A)	QUANTITY	PART
UBR28 SJ N 113	219.41	2	FLWB FWD
UBR28 SJ N 114	248.10	2	FLWB RWD
UBR28 SJ N 133	259.01	2	FTR
UBR28 SJ N 141_01A	142.3	2	FDR (SHORT)
UBR28 SJ N 141_02A	167.96	2	FDR (LONG)
UBR28 SJ N 233	167.96	2	RTR
UBR28 SJ N 241_01A	92.28	2	RDR (SHORT)
UBR28 SJ N 241_02A	102.28	2	RDR (LONG)

UBRacing

IF IN DOUBT ASK

A3

DO NOT SCALE

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E-MAIL ubracing@gmail.com

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MATERIAL CERTIFICATE REQUIRED

DIMENSIONS IN MILLIMETRES ± 0.5

0 DECIMAL PLACES ±0.50

1 DECIMAL PLACES ±0.25

2 DECIMAL PLACES ±0.10

3 DECIMAL PLACES ±0.02

GENERAL CONCENTRICITY 0.1 TIR

ANGULAR TOLERANCE ±0.25°

REMOVE BURRS AND SHARP EDGES

COMPONENT MASS (KG)

N/A

DRAWN BY

SW

SCALE

1:1

MATERIAL SPEC

TAS STEEL

REVISIONS

N/A

DESCRIPTION

0.5 TUBE SHEET

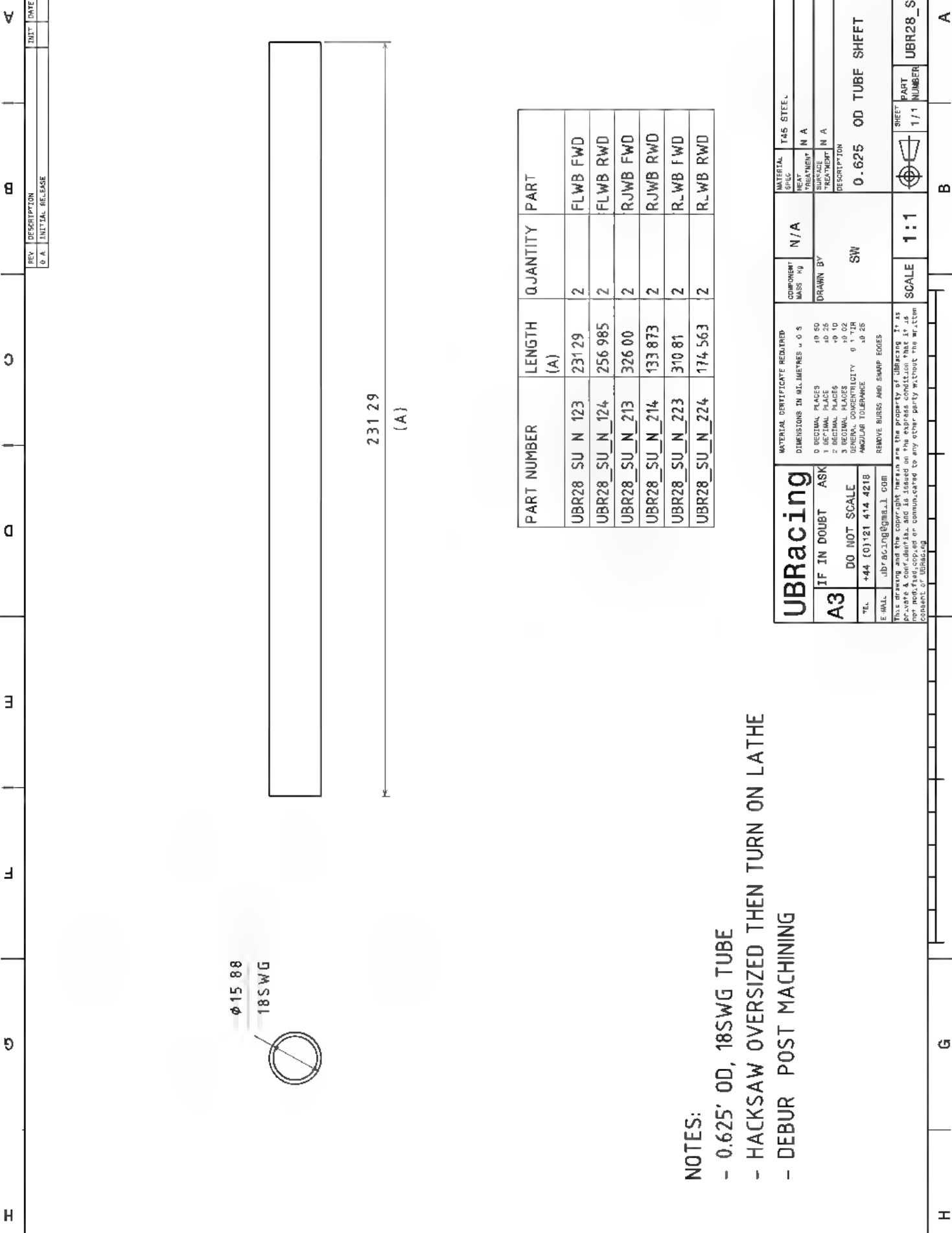
SHEET

1/1

PART NUMBER

UBR28_SU

REV	DESCRIPTION	INT	DATE
0 A	INITIAL RELEASE		



NOTES:
- 0.625' OD, 18SWG TUBE
- HACKSAW OVERSIZED THEN TURN ON LATHE
- DEBUR POST MACHINING

UBRacing

IF IN DOUBT ASK

A3

DO NOT SCALE

*TEL +44 (0)121 414 4218

E-MAIL ubracing@gmail.com

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MATERIAL CERTIFICATE REQUIRED
DIMENSIONS IN MILLIMETRES ± 0.5
0 DECIMAL PLACES ±0.50
1 DECIMAL PLACES ±0.25
2 DECIMAL PLACES ±0.10
3 DECIMAL PLACES ±0.02
GENERAL CONCENTRICITY 0.1 TIR
ANGULAR TOLERANCE ±0.25
REMOVE BURRS AND SHARP EDGES

COMPONENT MASS kg
DRAWN BY
SW

N/A

MATERIAL SPEC
TAS STEEL
REPLACEMENT
DESCRIPTION

0.625 OD TUBE SHEET

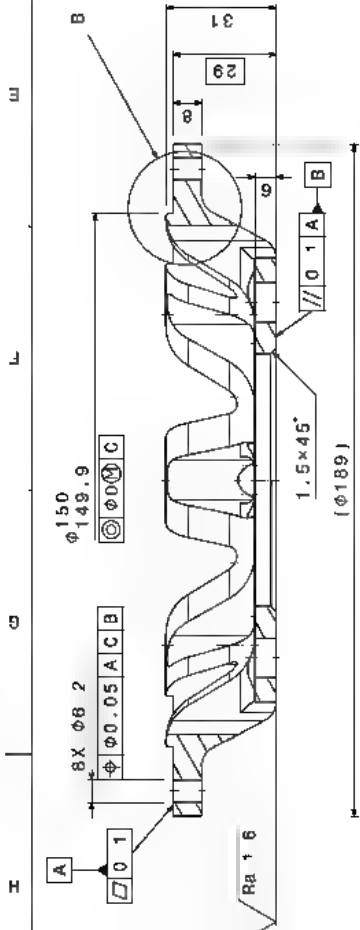
SCALE 1:1

SHEET 1/1

PART NUMBER

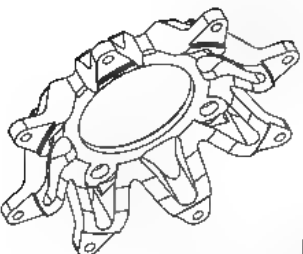
UBR28_SU

A



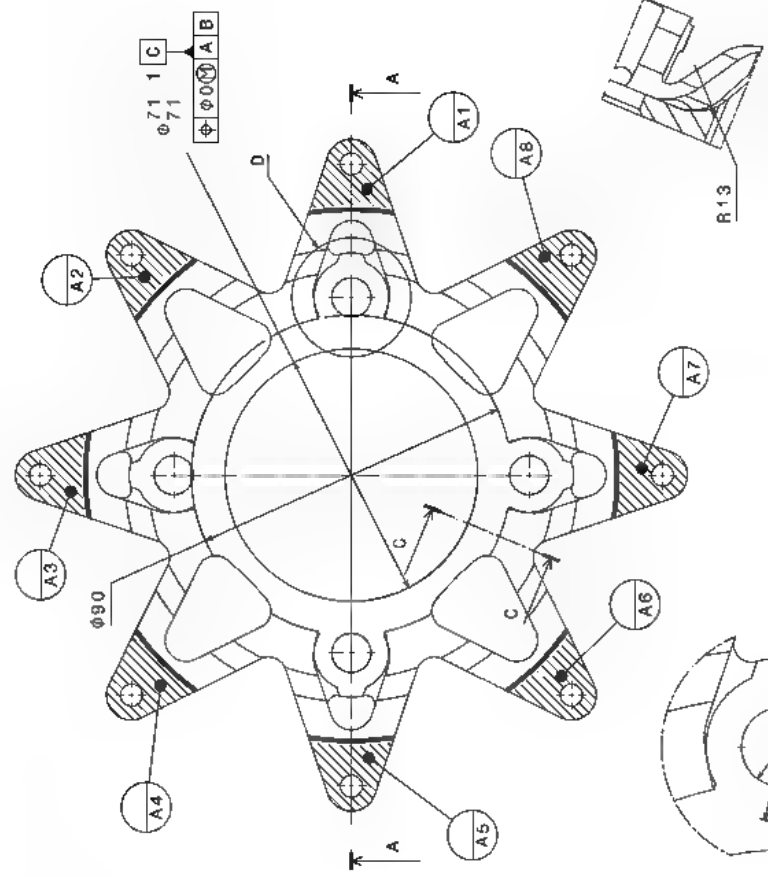
Section view A-A

Detail B
Scale: 2:1
OCCURRING IN 8 POSITIONS

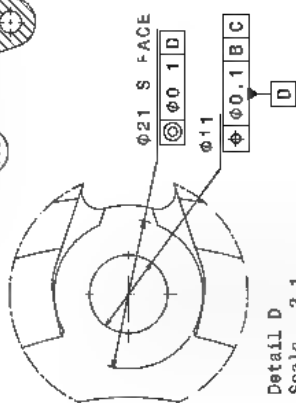


Isometric view
Scale 1:2

Ø175 PCD
Ø0.05 C A



Section view C-C
OCCURRING IN 8 POSITIONS



Detail D
Scale: 2:1
OCCURRING IN 4 POSITIONS

✓ Ra 3.2 (✓ Ra 1.6)

- NOTES:
1. FOR ALL UNDIMENSIONED FEATURES REFER TO CAD MODEL
 2. BREAK ALL SHARP EDGES TO R0.2 OR 0.2X45° MAX
 3. GENERAL PROF. F TOLERANCE 0.2 A B C

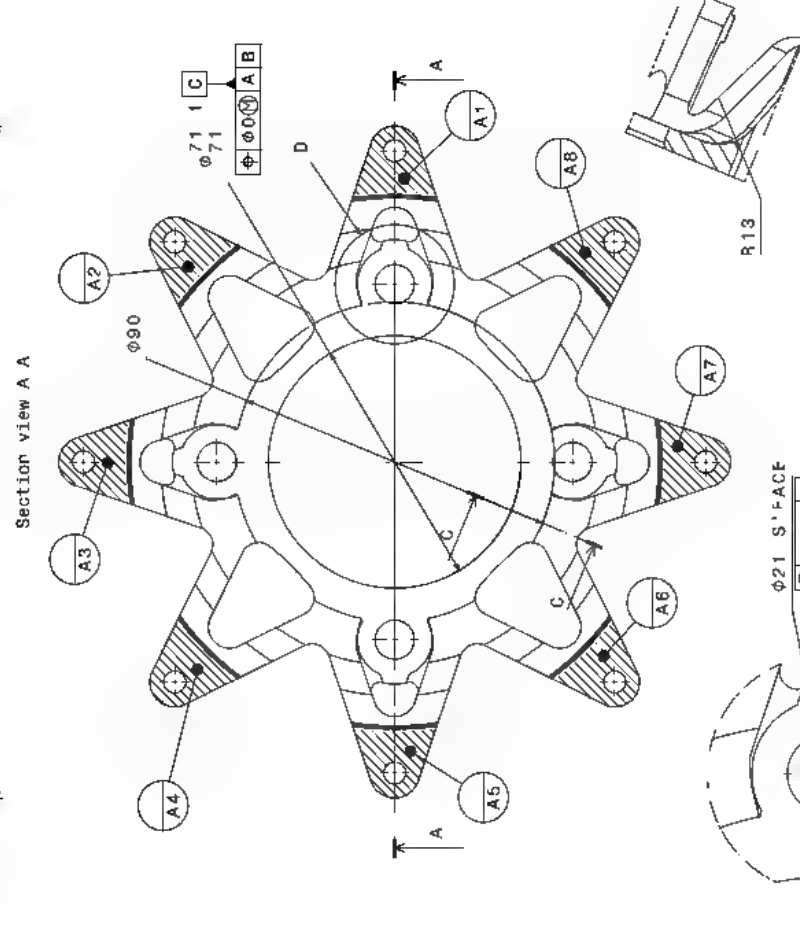
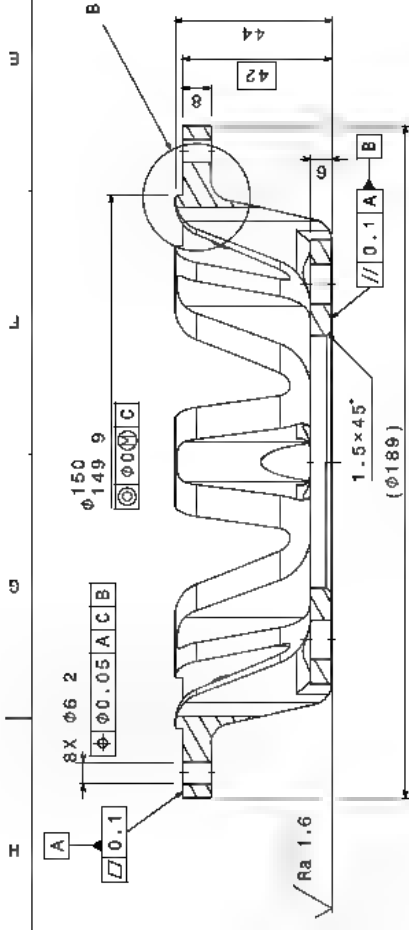
ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED
TOLERANCES LINEAR ± 0.05
RADIAL +0.05

NO DEVIATION FROM THIS DRAWING WITHOUT THE WRITTEN CONSENT OF JBRACING

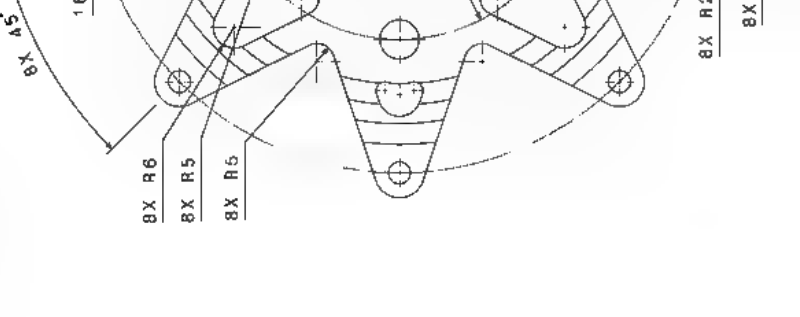
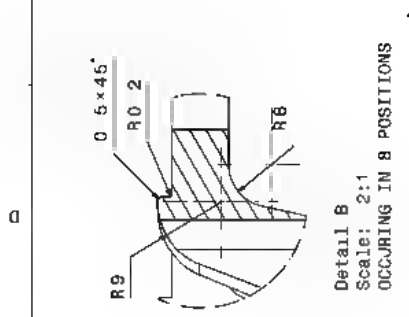
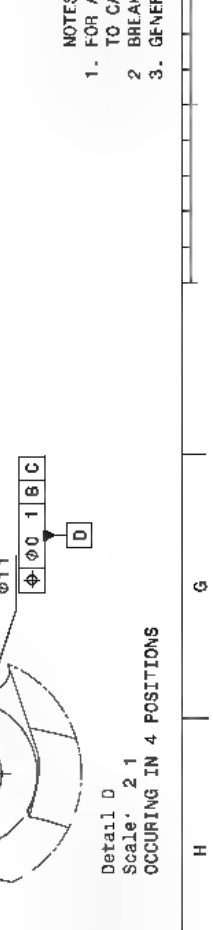
DRAWING TITLE: JBR 22 FRONT WHEEL CENTRE
PART NO: JBR22_WHEELCENTRE_25MM_WT00005
QUANTITY: 4

DRAWN BY: JAMES DAVIES 25.03.2019
DESIGNED BY: JAMES DAVIES
APPROVED BY: ANTHONY JANE

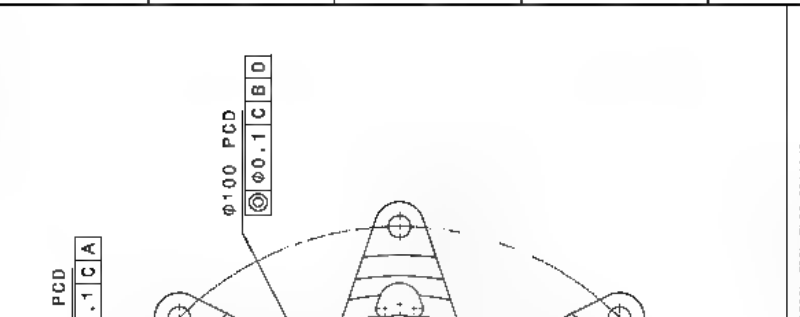
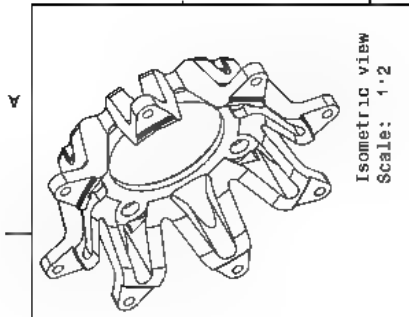
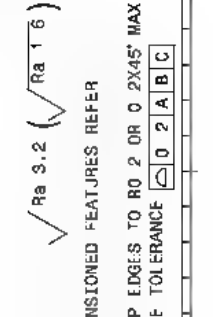
MATERIAL	THIRD ANGLE PROJECTION	SIZE A2	REV
ALUMINIUM 2024			
SCALE 1 : 1 (2 : 1)	CAD IS MASTER	SHEET	



Section view C-C
OCCURRING IN 8 POSITIONS



Section view B-B
OCCURRING IN 8 POSITIONS



NO DEVIATION FROM THIS DRAWING WITHOUT THE WRITTEN CONSENT OF JBRACING		ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED TOLERANCES: LINEAR ± 0.05 RADIAL ± 0.05	
DRAWING TITLE: JBR22 BEAR WHEEL, CENTRE PART NO: JBR22_WHEEL_CENTRE_42MM_W70004 QUANTITY: 4		DRAWN BY: JAMES DAVIES 25 03 '19 DESIGNED BY: JAMES DAVIES APPROVED BY: ANTHONY JANE	
MATERIAL ALUMINIUM 2024		THIRD ANGLE PROJECTION	
SCALE: 1:2:1		SHEET: 1	

- NOTES:
1. FOR ALL UNDIMENSIONED FEATURES REFER TO CAD MODEL
 2. BREAK ALL SHARP EDGES TO R0.2 OR 0.2X45° MAX
 3. GENERAL PROFILE TOLERANCE: Ø0.2 A B C

Detail D
Scale: 2:1
OCCURRING IN 4 POSITIONS

Detail B
Scale: 2:1
OCCURRING IN 8 POSITIONS

Detail E
Scale: 2:1
OCCURRING IN 4 POSITIONS

A

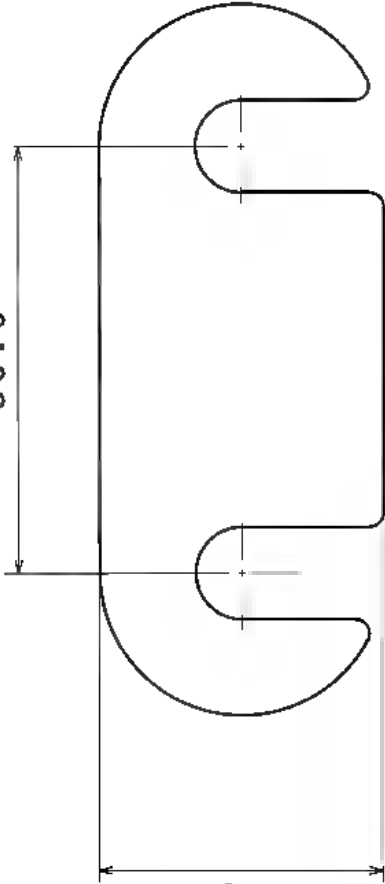
B

C

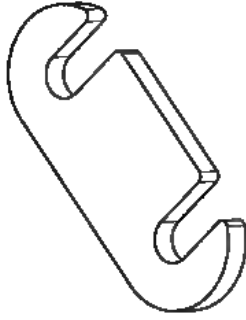
D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	EPC	31 05 2025

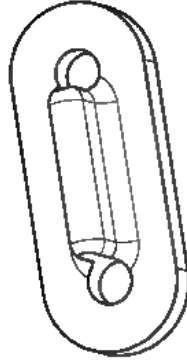
30.0



20



ISOMETRIC
JIG 2



ISOMETRIC
JIG 1

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT		0.001		ALUMINIUM	
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES ± 0.5		W008 .JIG		HEAT TREATMENT		N A	
A4		DO NOT SCALE		DRAWN BY		SURFACE FINISH		N A	
TEL		+44 (0)121 414 4218		EPC		DESIGN		DESIGN	
E-MAIL		ubracing@bt.com		REMOVE BURRS AND SHARP EDGES		0.02		0.02	
								CAMBER SHIM AND JIGS	
								SCALE	
								2:1	
								SHEET	
								1/1	
								PART	
								NUMBER	
								UBRCS CAMBER SHIM	

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A

D

A

B

C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	EPC	25 04 2025

4

3

2

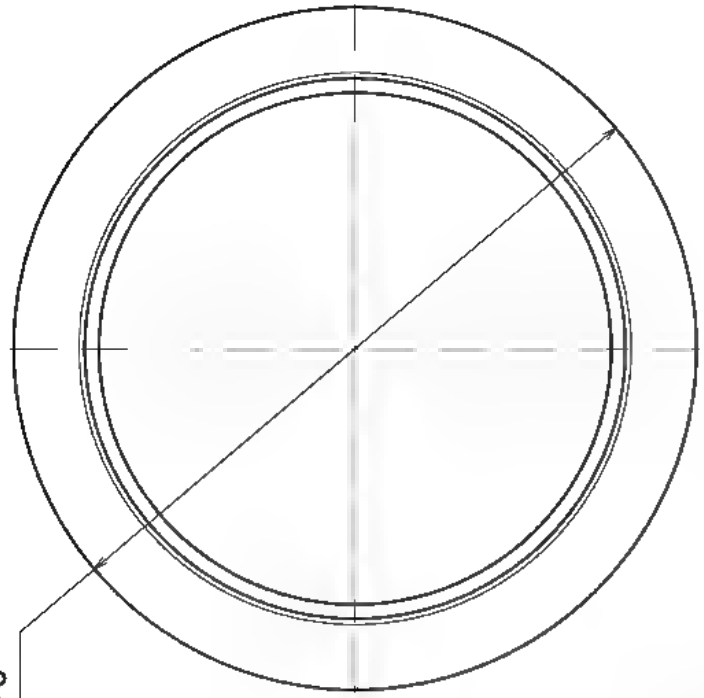
1

R0.2

1.5

2

Ø24.00

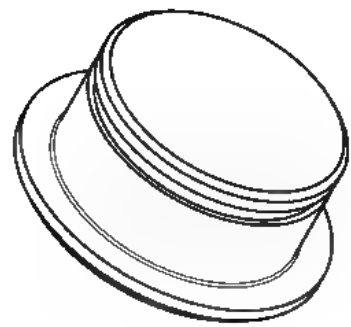


Ø19.0

A

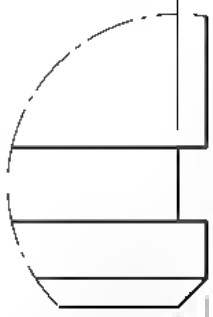
6

1 x 45°



ISOMETRIC VIEW
Scale: 2:1

0.5 x 45°



1.3

Ø18.0

DETAIL A
SCALE 8:1

UBRacing

IF IN DOUBT ASK
A4 DO NOT SCALE

TEL +44 (0)121 414 4218
EMAIL ubracing@bt.com

MATERIAL CERTIFICATE REQUIRED
DIMENSIONS IN MILLIMETRES ± 0.5
0 DECIMAL PLACES ± 0.50
1 DECIMAL PLACES ± 0.25
2 DECIMAL PLACES ± 0.10
3 DECIMAL PLACES ± 0.02
GENERAL CONCENTRICITY 0.10
ANGULAR TOLERANCE ± 0.25

REMOVE BURRS AND SHARP EDGES
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COMPONENT NAME: 7076-T6 ALUMINIUM
DRAWN BY: EPC

SCALE: 4:1

MATERIAL SPEC: 7076-T6 ALUMINIUM
HEAT TREATMENT: N/A
SURFACE FINISH: N/A
DESIGN: PITCH

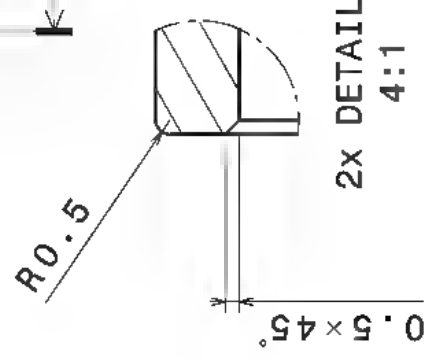
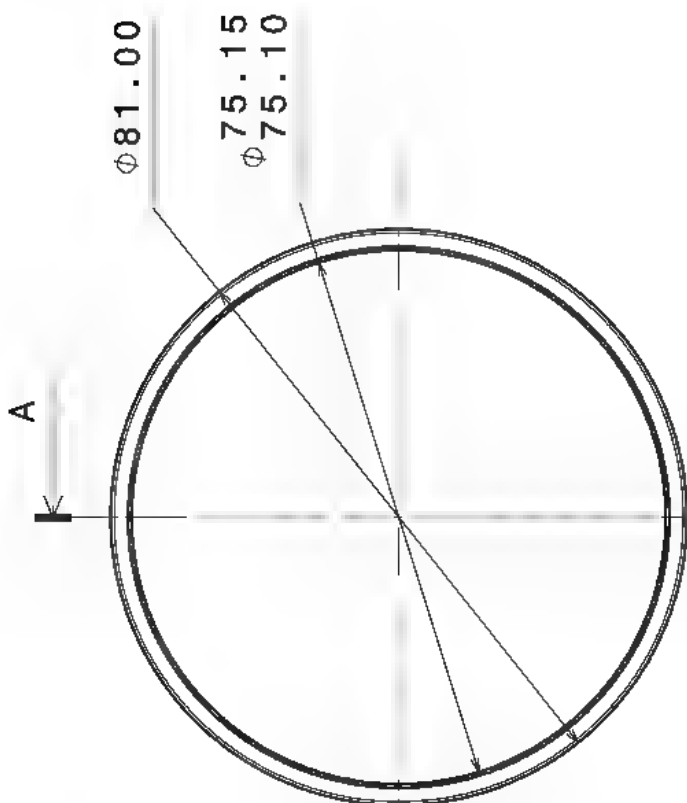
FRONT DISC BRAKE BUTTON

SHEET: 1/1
PART NUMBER: UBR28 08

FRONT DISC BRAKE BUTTON

A

D



SECTION A-A
1:1

2X DETAIL B
4:1

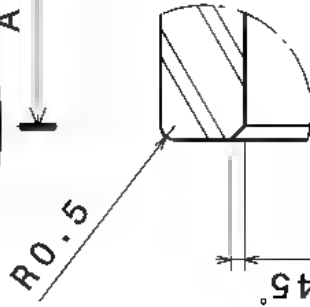
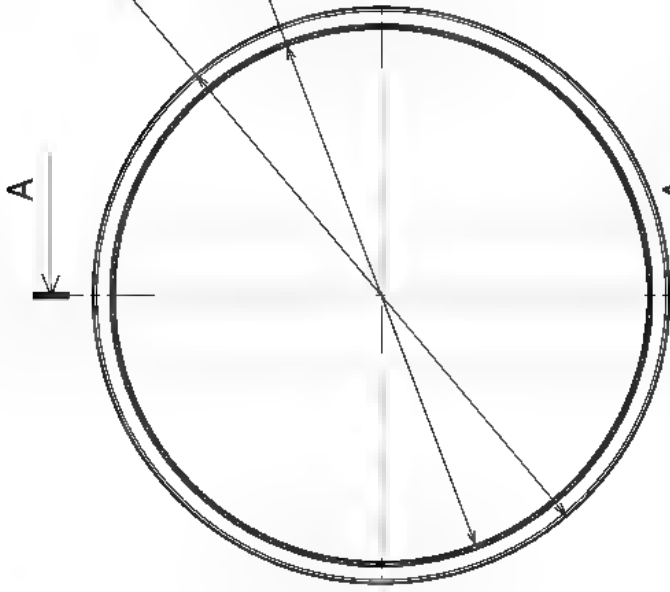
NOTES:
QUANTITY X2

REV		DESCRIPTION	INIT	DATE
01A	INITIA.	RE-LEASE	EPC	19 03 2025

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT	0.060	MATERIAL	ALUMINIUM 7075
A4	IF IN DOUBT	ASK	DIMENSIONS IN MILLIMETRES ± 0.5	W908 .JG	DRAWN BY	HEAT TREATMENT	N A
	DO NOT SCALE		0 DECIMAL PLACES ± 0.50			SURFACE FINISH	N A
	TEL	+44 (0)121 414 4218	1 DECIMAL PLACES ± 0.25			DESIGN FITTING	
	E-MAIL	ubrcing@ubrail.com	2 DECIMAL PLACES ± 0.10				
			3 DECIMAL PLACES ± 0.02				
			GENERAL CONCENTRICITY 0.10				
			ANGULAR TOLERANCE ± 0.25				
			REMOVE BURRS AND SHARP EDGES				
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SCALE	1:1	SHEET	PART	NUMBER
		1/1	UBR28 FRONT UPRIGHT BEARING SPACER	UBR28_OB_N_350

Φ 81.00
75.15
Φ 75.10



SECTION A-A

45.00
44.90

X2 DETAIL B
4:1

NOTES:
QUANTITY X2

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	EPC	19/03/2023

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT MARB 700	0.080	MATERIAL SPEC	ALUMINIUM 7075
IF IN DOUBT ASK		DIMENSIONS IN MILLIMETRES ± 0.5					
A4	DO NOT SCALE		0 DECIMAL PLACES ± 0.50	DRAWN BY	EPC	REAR TREATMENT	N A
			1 DECIMAL PLACES ± 0.25				
			2 DECIMAL PLACES ± 0.10				
			3 DECIMAL PLACES ± 0.02				
TEL	+44 (0)121 414 4218		GENERAL CONCENTRICITY 0 TIR	LBR28 REAR UPRIGHT BEARING SPACER		DESIGN BY	N A
E-MAIL	ubracing@uball.com		ANGULAR TOLERANCE ± 0.25				
			REMOVE BURRS AND SHARP EDGES				
			This drawing and the copyright herein are the property of UBRacing. It is private & confidential, and is issued on the express condition that it is not modified, copied or communicated to any other party without the written consent of UBRacing.				
			SCALE	1:1	SHEET PART NUMBER 1 / 1		UBR28 08 N 450

A

B

C

D

REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	EPC	25 04 2025

R0.2

1.5

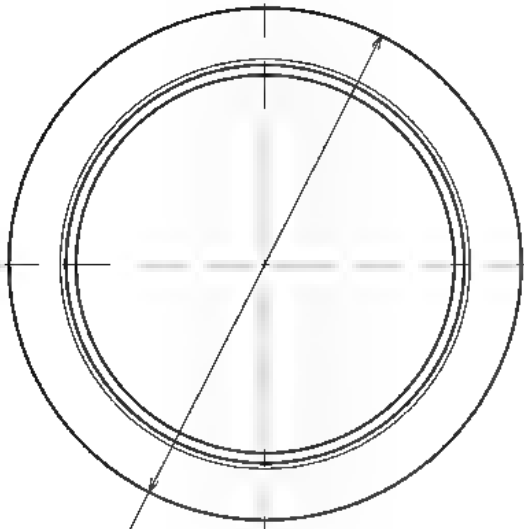
2

0.71 × 45°

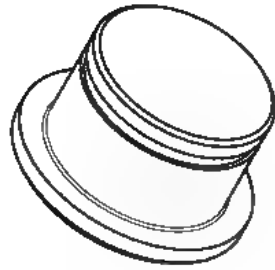
Ø 14

6

A



Ø 18.00

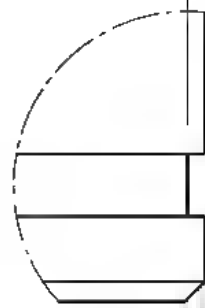


ISOMETRIC VIEW
SCALE 2:1

0.35 × 45°

1.1

Ø 13.4



DETAIL A
SCALE 8:1

UBRacing

IF IN DOUBT ASK
A4 DO NOT SCALE

TEL +44 (0)121 414 4218
E-MAIL ubracing@bt.com

MATERIAL CERTIFICATE REQUIRED
DIMENSIONS IN MILLIMETRES ± 0.5
0 DECIMAL PLACES ± 0.50
1 DECIMAL PLACES ± 0.25
2 DECIMAL PLACES ± 0.10
3 DECIMAL PLACES ± 0.02
GENERAL CONCENTRICITY 0.10
ANGULAR TOLERANCE ± 0.25

REMOVE BURRS AND SHARP EDGES
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COMPONENT
MATERIAL 7076-T6 ALUMINIUM
HEAT TREATMENT N/A
SURFACE FINISH N/A
DESIGN BY EPC
DRAWN BY EPC

SCALE 4:1

SHEET 1/1
PART NUMBER

UBRACING LTD

A

D

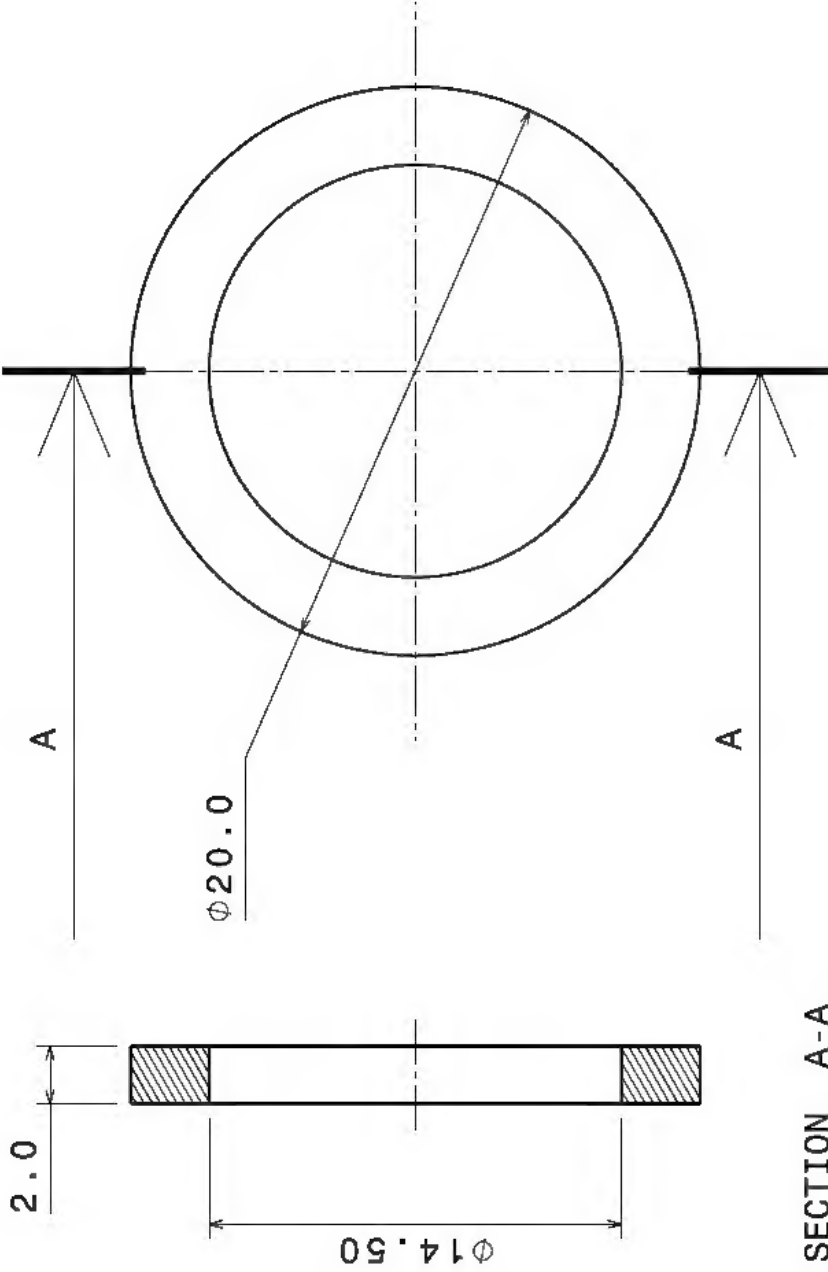
A

B


C

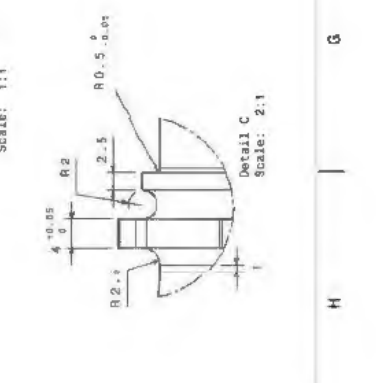
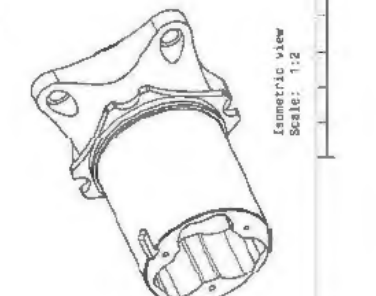
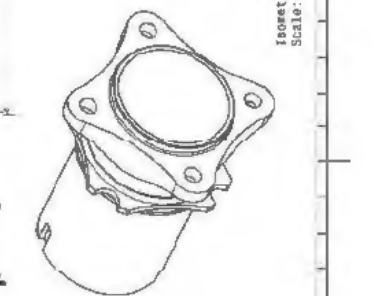
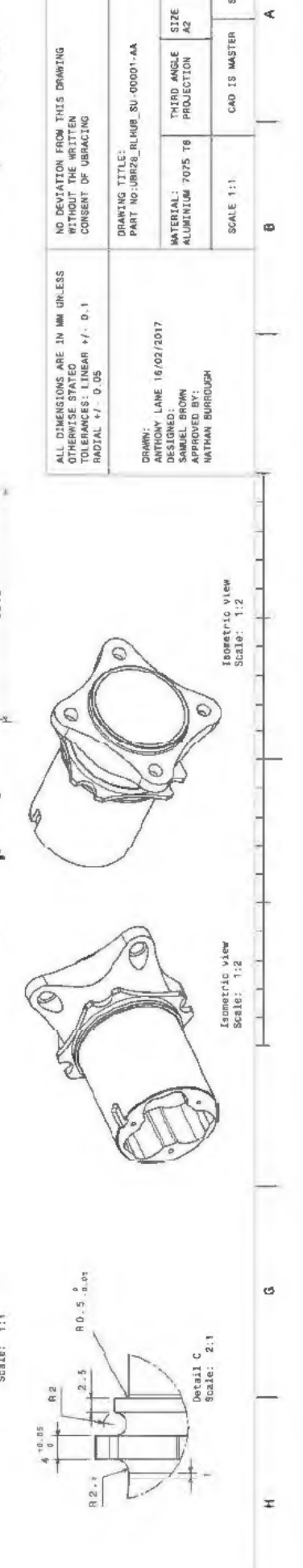
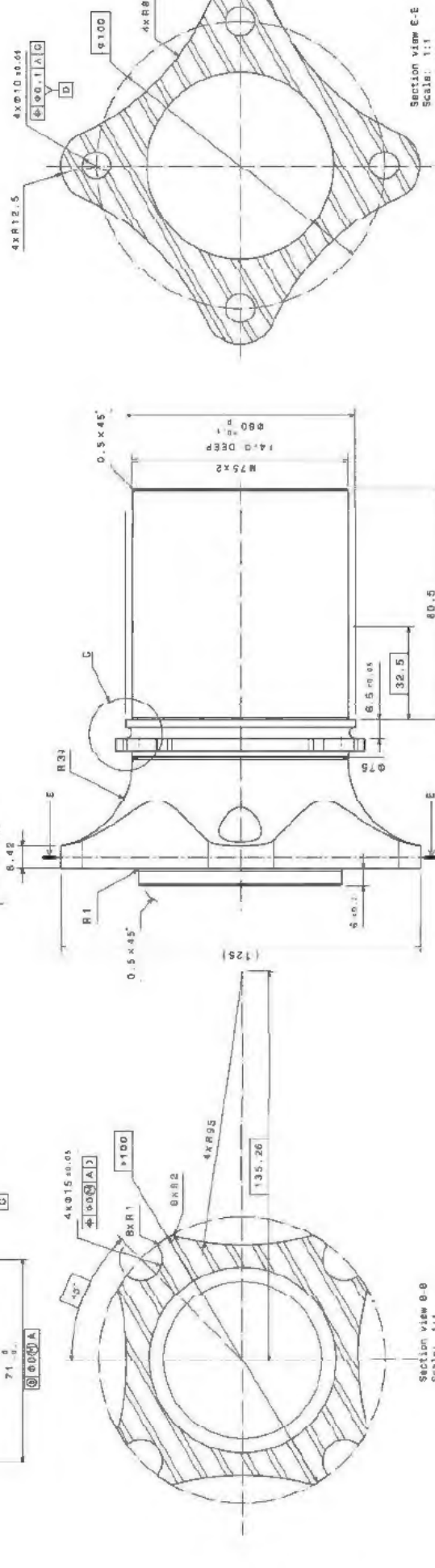
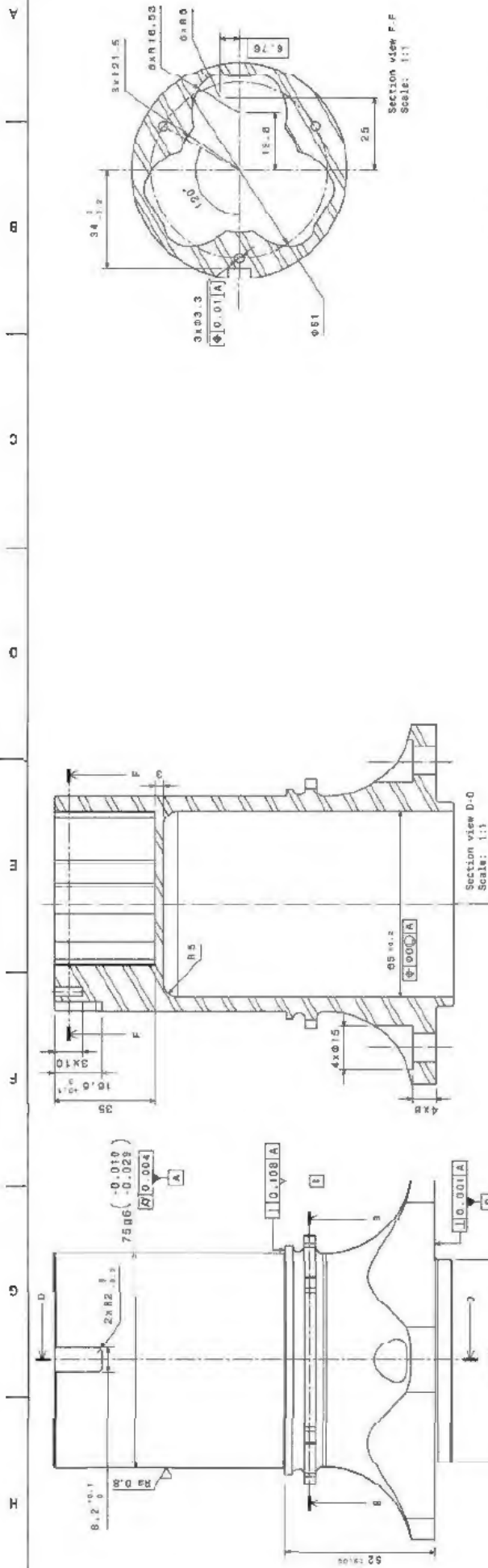
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REV	DESCRIPTION	INIT	DATE
01A	INITIAL RELEASE	EPC	25/04/2025

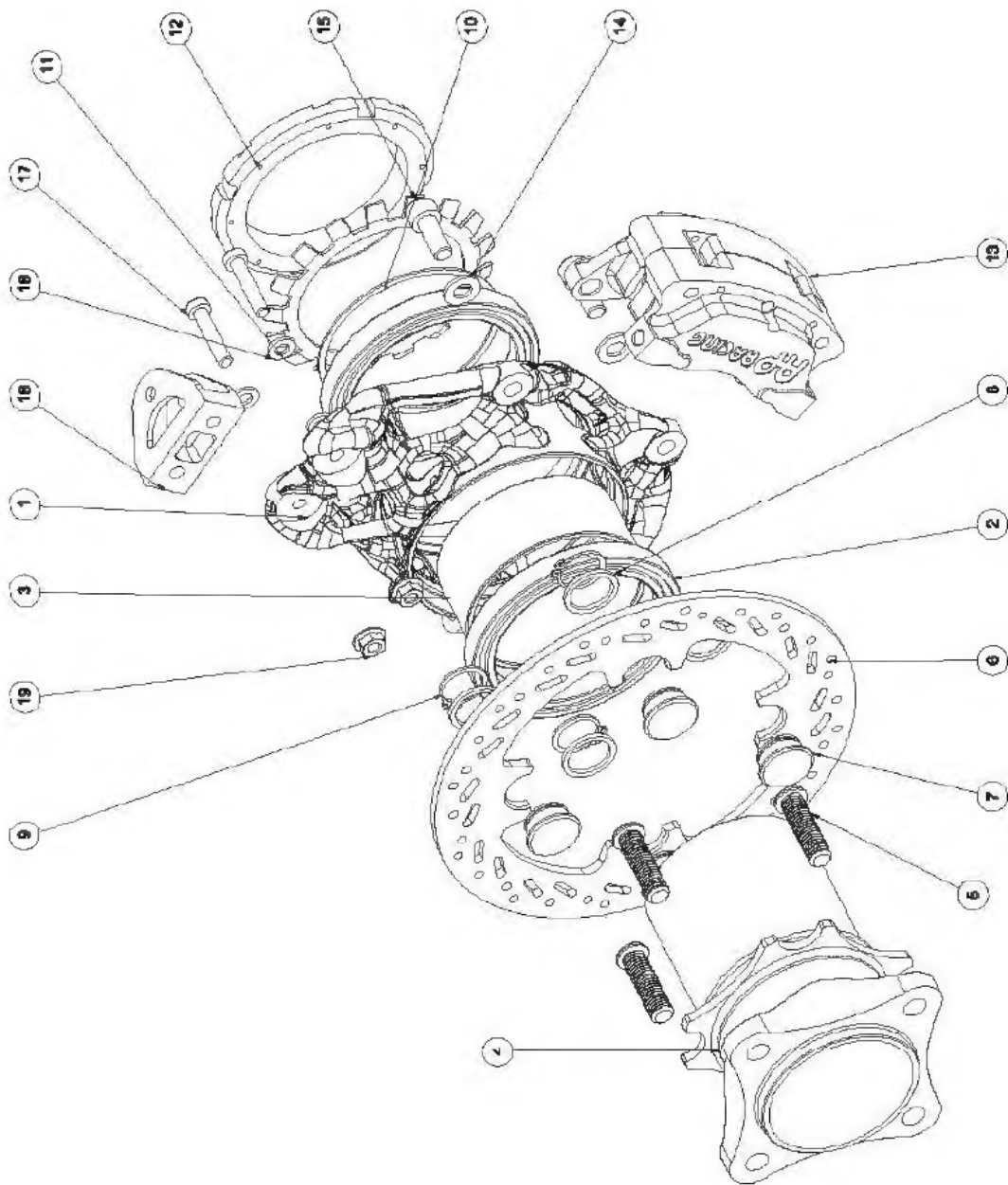


SECTION A-A
SCALE 4:1

UBRacing		MATERIAL CERTIFICATE REQUIRED		COMPONENT	0.001	MATERIAL SPEC	7076- T6 ALUMINIUM
A4	IF IN DOUBT - ASK	DIMENSIONS IN MILLIMETRES U.O.S		DRAWN BY		HEAT TREATMENT	N/A
	DO NOT SCALE	0 DECIMAL PLACES ±0.50				SURFACE TREATMENT	N/A
TEL. +44 (0)121 414 4218		1 DECIMAL PLACES ±0.25				DESCRIPTION	
E-MAIL. ubracing@gmail.com		2 DECIMAL PLACES ±0.10			EPC	REAR BRAKE BUTTON SPACER	
		3 DECIMAL PLACES ±0.02					
		GENERAL CONCENTRICITY 0.1 TIR					
		ANGULAR TOLERANCE ±0.25					
		REMOVE BURRS AND SHARP EDGES					
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						SHEET 1/1	PART NUMBER



PARTS LIST		
ITEM	QTY	DESCRIPTION
1	1	MACHINED UPRIGHT
2	2	OUTBOARD BEARING
3	1	BEARING SPACER
4	1	FRONT LEFT HUB
5	4	SPRINT LIFT ARM
6	1	FRONT DISC BRAKE
7	4	FRONT BRAKE BUTTON
8	4	FRONT BRAKE BUTTON SPACER
9	4	FRONT BRAKE CALIPER
10	1	THRUST WASHER
11	1	LOOKING TAB
12	1	LOCK RING
13	1	FRONT BRAKE CALIPER
14	2	M8 WASHER
15	2	M8 X 1 X 15 CH
16	1	UPRIGHT CLEVIS
17	2	M8 X 1 X 30 CH
18	2	M8 WASHER
19	2	M8 NUT



NOTES:
 • APPLY BEARING RETAINER
 • APPLY COPPER SLIP TO THE THREAD

UBRACING

Part Number: 001000
 Revision: 1.0
 Date: 10/10/2010
 Drawn By: J. Smith
 Checked By: J. Smith
 Approved By: J. Smith

Customer: EPC
 Project: 1.0
 Job: 1.0

Part Name: FRONT LEFT HUB
 Part Number: 001000
 Revision: 1.0
 Date: 10/10/2010

